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SURFACE WATER TEMPERATURES ALONG ATLANTIC AND GULF COASTS OF THE UNITED STATES

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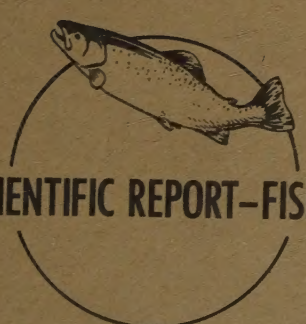

SPECIAL SCIENTIFIC REPORT–FISHERIES No. 214

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

EXPLANATORY NOTE

The series embodies results of investigations, usually of restricted scope, intended to aid or direct management or utilization practices and as guides for administrative or legislative action. It is issued in limited quantities for official use of Federal, State or cooperating agencies and in processed form for economy and to avoid delay in publication.

United States Department of the Interior, Fred A. Seaton, Secretary
U. S. Fish and Wildlife Service

SURFACE WATER TEMPERATURES ALONG ATLANTIC AND GULF COASTS OF THE UNITED STATES

By

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Surface Water Temperatures along the Atlantic and Gulf Coasts of the United States

Sea water temperatures have been collected daily at numerous places along the eastern and southern seaboards of the United States. Many of these records commenced during the latter part of the nineteenth century and contuined on into the early part of the twentieth century. Many others, unfortunately, were of shorter duration. These records were collected at the instigation of the U. S. Commissioner of Fish and Fisheries (USCFF) by the lighthouse and lightship keepers under the direction of the U. S. Lighthouse Board and by members of the U. S. Signal Corps. Rathbun (1887) reported on many of these data for the period 1881-85. Parr (1933) also employed some of these data for the period 1928-31 in an examination of the seasonal changes in temperature from a geographic-ecological point of view.

Latterly, the U. S. Coast and Geodetic Survey (USC&GS) has made temperature observations in connection with their tide stations and have published the monthly means (U. S. Department of Commerce, 1955). The U. S. Weather Bureau(National Weather Records Center) (NWRC) has kindly furnished recent data from lightships taken four times daily.

Interest in the changes in the marine environment has mounted recently due to the increasing awareness of the spread of populations (Scattergood 1952) and the documented changes in the environment (Collier, 1954; Ketchen, 1956; Taylor, Bigelow and Graham, 1957).

As mentioned above, the historical records of surface water temperature have been published only in part. There are presented herein the monthly and annual mean surface water temperatures for the period of record with the exception of the USC&GS data, in order to make these data available to investigating biologists.

The original U. S. Commission of Fish and Fisheries (USCFF), U. S. Bureau of Fisheries (USBF), U. S. Fish and Wildlife Service (USFWS), daily data are on file at the Woods Hole Oceanographic Institution. These data consist of daily or twice daily air and water temperatures, wind and weather observations, together with notes, in many instances, of fish observations. Such data are

much too voluminous to publish in extenso. The data from a number of stations along the Florida, Alabama, Mississippi, Louisiana and Texas Coast have previously been presented in Whitehouse and Brown (1956). The original data for these stations is on file with the U. S. Fish and Wildlife Service, Washington, D. C.

For reference purposes as to locations, periods of observation, source and page herein, the following list of locations is given in alphabetical order. The tables of data are arranged in geographical order, so far as possible from North to South along the Atlantic Coast and East to West along the Gulf Coast. The USC&GS locations are listed, but are not included in the tabulations. The locations of these observations are indicated in Figs. 1, 2 and 3.

Most of the USC&GS stations are on a continuing basis and presumably the monthly means will be published from time to time. Two additional USC&GS stations are also presently operating, Buzzards Bay (Cape Cod Canal), Mass. and Sagamore (Cape Cod Canal), Mass.

Those lightships marked with an asterisk (*) are currently collecting bathythermograms and surface water samples daily and bottom water samples weekly. Buzzards Bay Lightship, Mass. is also collecting daily surface water temperatures and surface water samples. The data for the year 1956 will be published in extenso in a forthcoming number of the Special Scientific Reports - Fisheries.

The patient assistance of Florence Glazer, C. Godfrey Day, Joan Brigham and Nadine Athearn is gratefully acknowledged.

Note: If the reader is aware of other data which would materially add to this compendium, he is urged to make this information known to the author. It could be included in forthcoming reports.

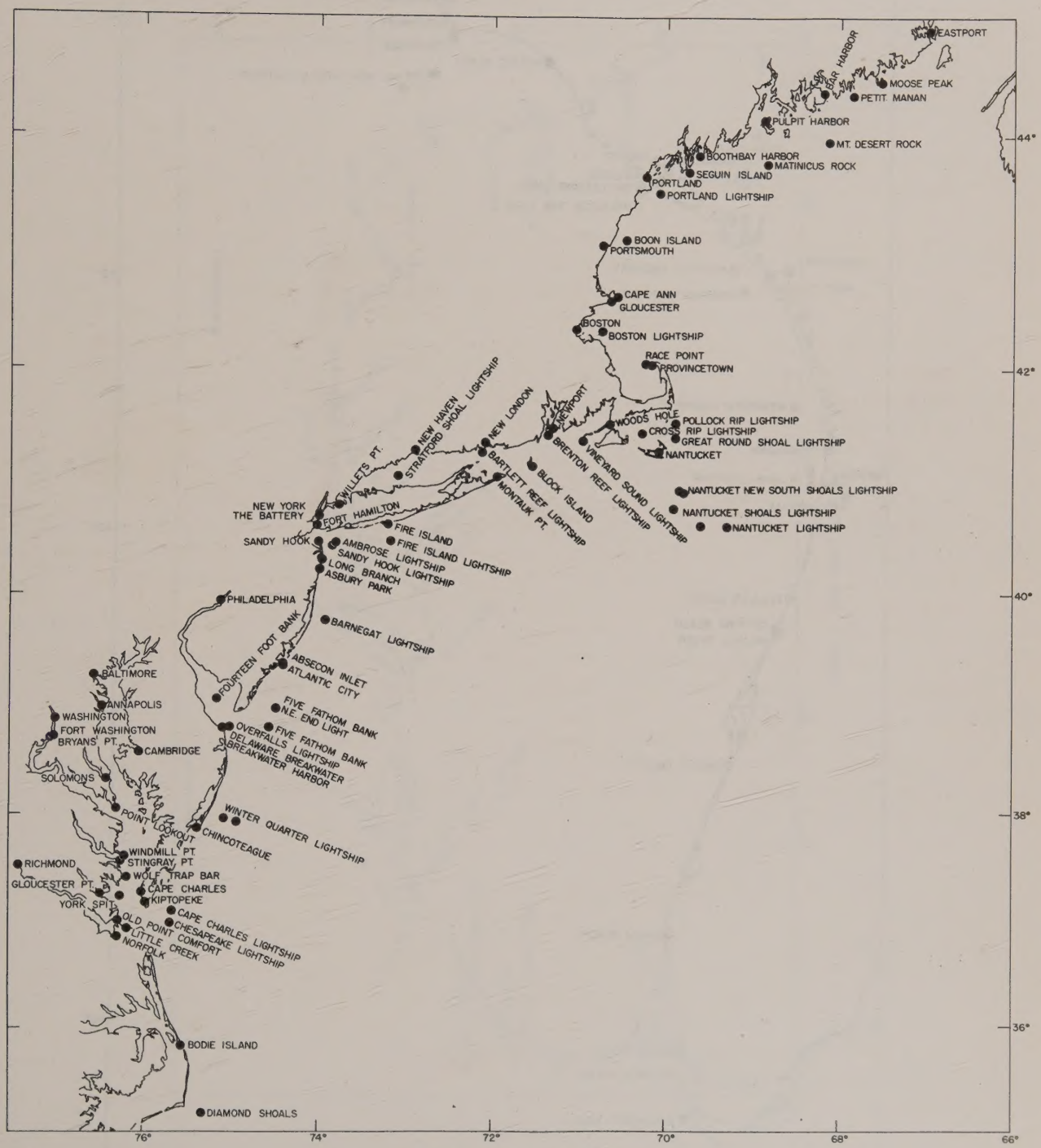

FIGURE 1 ATLANTIC COAST STATIONS, EASTPORT TO DIAMOND SHOALS

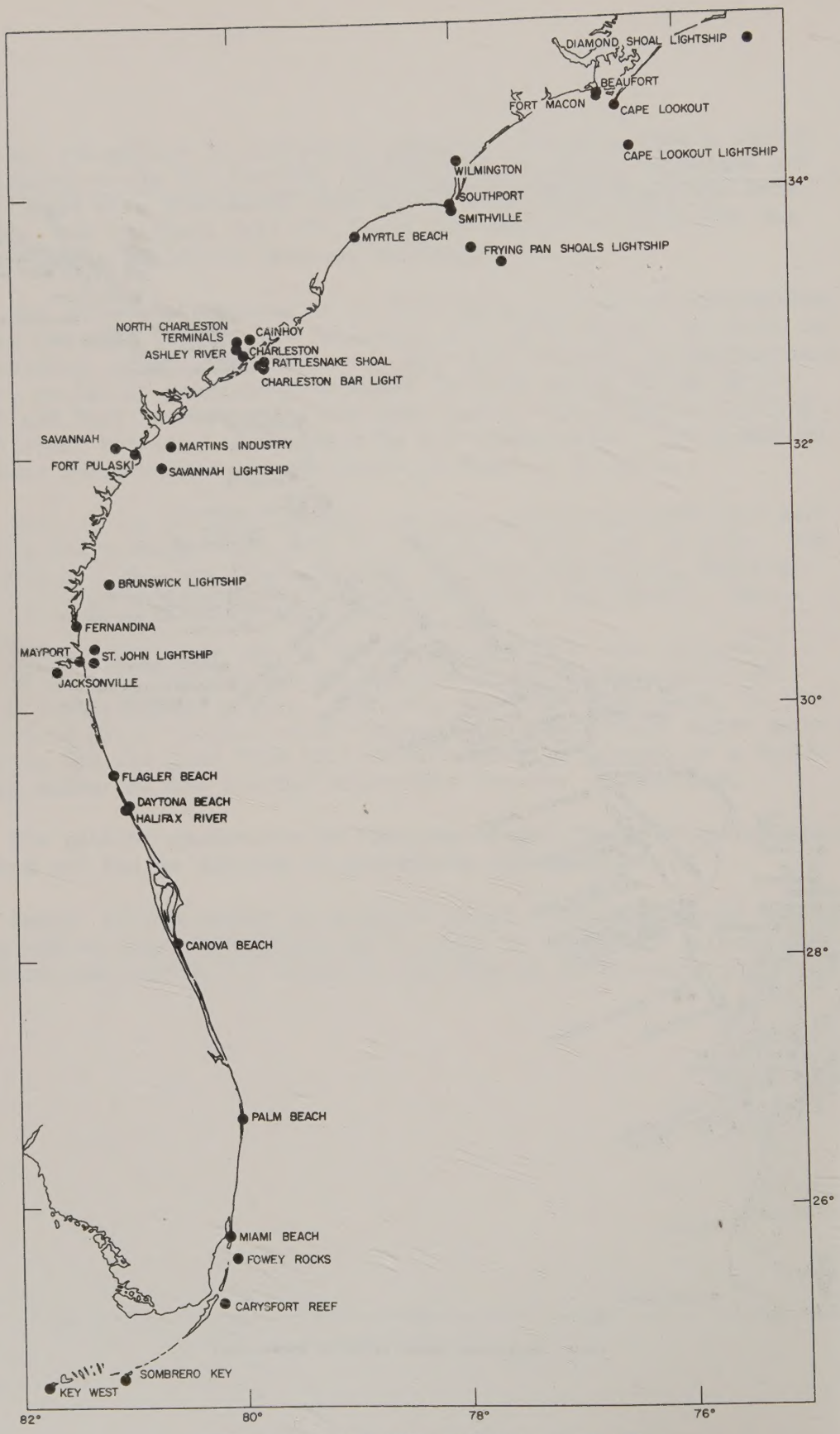

FIGURE 2 ATLANTIC COAST STATIONS, DIAMOND SHOALS TO KEY WEST

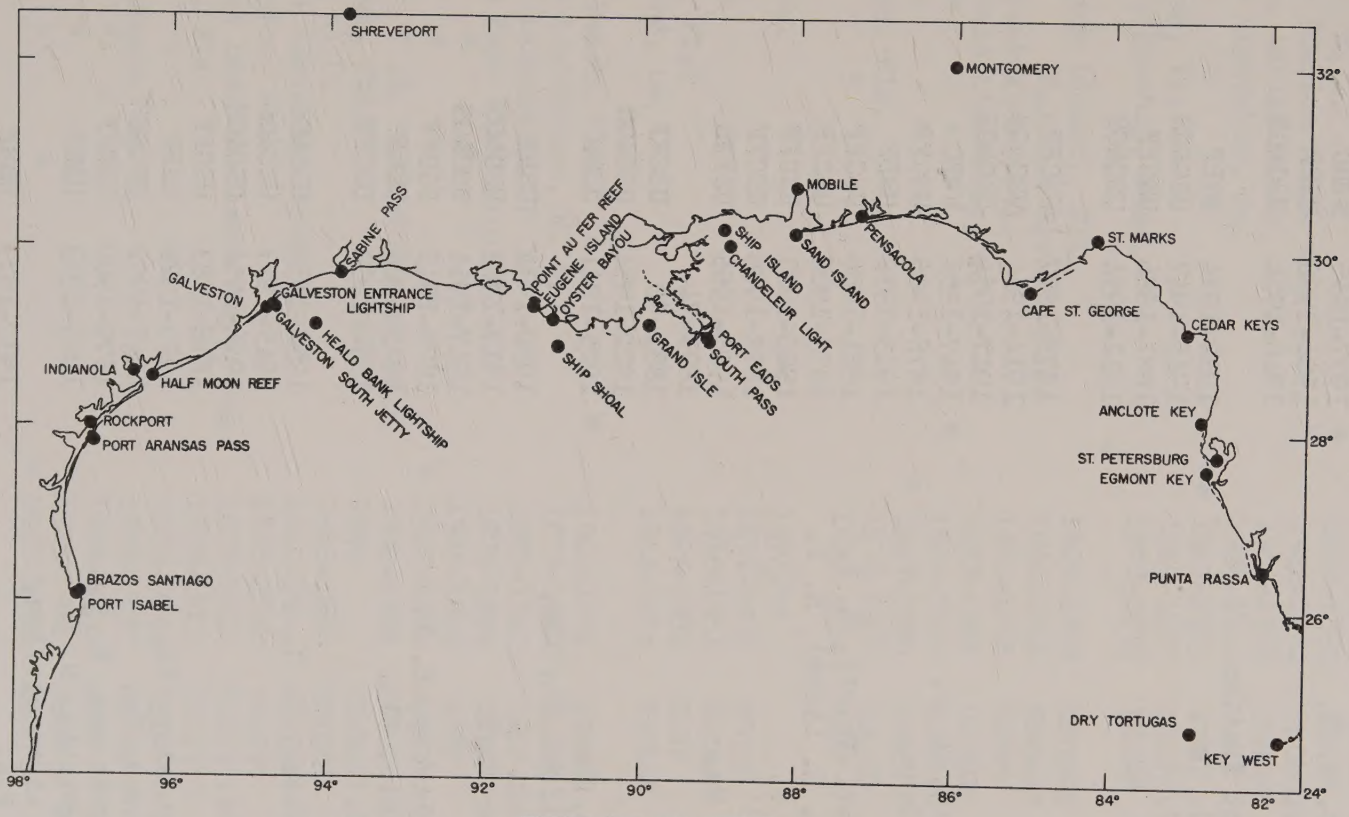

FIGURE 3 GULF COAST STATIONS

List of Stations

Location		Period	Source	Page
Absecon Inlet, N. J.		1878-1896	USCFF	64
Ambrose Lightship, N. Y.	*	1937-1956	NWRC	61
Anclote Key, Fla.		1904-1906	USBF	127
Annapolis, Md.		1946-1954	USC&GS	-
Aransas Pass Light Station (Harbor Island), Tex.		1932-1934	USBF	152
Asbury Park, N. J.		1945-1947	USC&GS	-
Atlantic City, N. J.		1881-1886	USCFF	65
" " "		1912-1954	USC&GS	-
Baltimore, Md.		1873-1887	USCFF	79
" "		1914-1954	USC&GS	-
Bar Harbor, Me.		1947-1954	USC&GS	-
Barnegat Lightship, N. J.	*	1947-1955	NWRC	63
Bartletts Reef, Conn.		1878-1906	USCFF	52
Beaufort, N. C.		1913-1932	USBF	97
Block Island (Govt. Wharf), R. I.		1881-1886	USCFF	56
" " (S. E. Light), R. I.		1878-1908	USCFF	55
Bodys Island, N. C.		1880-1883	USCFF	92
Boon Island, Me.		1878-1908	USCFF	25
Boothbay Harbor, Me.		1905-1955	USFWS	19, 20
Boston, Mass.		1873-74		
		1881-90	USCFF	28
" "		1922-1954	USC&GS	-
Boston Lightship, Mass.	*	1925-1941	USBF	29
Brazos-Santiago Light Station, Port Isabel, Tex.		1930-1934	USBF	153
Breakwater Harbor, Del.		1919-1923	USC&GS	-
" " "		1947-1954	USC&GS	-
Brenton Reef Lightship, R. I.		1878-1943	USCFF	49, 50
Brunswick Lightship, Fla.		1925-1928	USBF	113
Bryans Point, Md.		1892-1902	USCFF	82
Cainhoy, Wando River, S. C.		1951-1952	USC&GS	-
Cambridge, Md.		1945-1953	USC&GS	-
Canova Beach, Fla.		1946-1954	USC&GS	-
Cape Ann, Mass.		1878-1883	USCFF	26
Cape Charles Lightship, Va.		1925-1928	USBF	76
Cape Charles (town), Va.		1947-1952	USC&GS	-
Cape Lookout Lighthouse, N. C.		1879-1900	USCFF	94
" " Lightship, N. C.		1925-1933	USBF	95
Cape St. George Light Station, Apalachicola, Fla.		1930-1933	USBF	130
Carysfort Reef, Fla.		1878-1900	USCFF	120
Cedar Keys, Fla.		1879-1890	USCFF	128
" " "		1922-26		
		1944-51,'54	USC&GS	-

Location		Period	Source	Page
Chandeleur, La.		1904-1906	USBF	137
Charleston Bar, S. C.		1895-1911	USCFF	106, 107
Charleston Lightship, S. C.		1925-1933	USBF	108
Charleston, S. C.		1873-1890	USCFF	109
Charleston (Custom House Wharf), S. C.		1922-1954	USC&GS	-
Charleston, Ashley River, S. C.		1951-1952	USC&GS	-
Chesapeake Lightship, Va.		1928-1940	USBF	77
" " "	*	1947-1955	NWRC	78
Chincoteague, Va.		1880-1887	USCFF	75
Cross Rip Lightship, Mass.		1878-1893	USCFF	37
Daytona Beach (Ocean), Fla.		1925-1950	USC&GS	-
" " (Halifax River), Fla.		1946-1948	USC&GS	-
Delaware Breakwater, Del.		1880-1885	USCFF	71
Diamond Shoals Lightship, N. C.		1923-1928	USC&GS	)
" " " "		1925-1940	USBF	) 93
" " " "	*	1947-1956	NWRC	)
Dry Tortugas, Fla.		1878-1907	USCFF	123
" " "		1925-1934	USBF	124
Eastport, Me.		1874-75		
		1877-1890	USCFF	12
" "		1930-1954	USC&GS	-
Egmont Key, Fla.		1925-1934	USBF	126
Eugene Island, La.		1944-1954	USC&GS	-
Fernandina Beach, Fla.		1944-1954	USC&GS	-
Fire Island Lighthouse, N. Y.		1878-1887	USCFF	57
" " Lightship, N. Y.		1925-1940	USBF	58
Five Fathom Bank Lightship, N. J.		1878-1899	USCFF	67
" " " " "		1925-1940	USBF	68
" " " " "	*	1947-1956	NWRC	69
" " " (N. E. End Light), N.J.		1904-1908	USBF	66
Flagler Beach, Fla.		1946	USC&GS	-
Fort Macon, N. C.		1883-1886	USCFF	96
Fort Pulaski (Savannah River), Ga.		1940-1954	USC&GS	-
Fort Washington, Md.		1885-1892	USCFF	81
Fourteen Foot Bank (Delaware Bay), Del.		1878-1912	USCFF	70
Fowey Rocks, Fla.		1879-1922	USCFF	) 118, 119
" " "		1925-1934	USBF	)
Frying Pan Shoals, N. C.		1878-1907	USCFF	98
" " " "		1908-1910	USBF	99
" " " "		1925-1934	USBF	100, 101
" " " "	*	1947-1956	NWRC	102
Galveston, Tex.		1873-1887	USCFF	147
" "		1922-1954	USC&GS	-
Galveston Entrance Lightship, Tex.		1904-1905	USCFF	146
Galveston South Jetty, Tex.		1930-1934	USBF	148

Location	Period	Source	Page
Gloucester, Mass.	1878-1893	USCFF	27
Gloucester Point, Va.	1950-1954	USC&GS	-
Grand Isle (Drilling Platform), La.	1949-1954	USC&GS	-
Great Round Shoal Lightship, Mass.	1891-1903	USCFF	35
Half Moon Reef Light Station, Matagorda Bay, Tex.	1930-1935	USBF	149
Heald Bank Lightship	1930-1935	USBF	145
Indianola, Tex.	1873-1886	USCFF	150
Jacksonville, Fla.	1875-1887	USCFF	117
James River at Richmond, Va.	1876-1877	USCFF	89
Kiptopeke, Va.	1951-1954	USC&GS	-
Key West, Fla.	1874-1890	USCFF	122
" " "	1933-1954	USC&GS	-
Little Creek, Va.	1954	USC&GS	-
Long Branch, N. J.	1948-1954	USC&GS	-
Martins Industry Lightship, S. C.	1878-1911	USCFF	110
Matinicus Rock, Me.	1878-1907	USCFF	18
Mayport, Fla.	1944-1954	USC&GS	-
Miami Beach, Fla.	1940-1951	USC&GS	-
Mobile, Ala.	1873-1887	USCFF	134
Montauk (Fort Pond Bay) L.I., N.Y.	1947-1954	USC&GS	-
Montgomery, Ala.	1873-1878	USCFF	135
Moose Peak, Me.	1878-1880	USCFF	13
Mt. Desert Rock, Me.	1878-1903	USCFF	15
" " " "	1925-1955	USFWS	16, 17
Myrtle Beach, S. C.	1951-1954	USC&GS	-
Nantucket, Mass.	1886-1890	USCFF	36
" New South Shoals Lightship	1878-1892	USCFF	38
" Shoals Lightship	1892-1912	USCFF	39, 40
" " "	1923-1925	USC&GS)	
" " "	1925-1941	USBF)	41
" " "	* 1947-1955	NWRC	42, 43
New Haven, Conn.	1881-1886	USCFF	53
New London, Conn.	1873-1887	USCFF	51
" " "	1947-1954	USC&GS	-
Newport, R. I.	1881-1883	USCFF	48
New York, N. Y.	1873-1890	USCFF	59
" " (Fort Hamilton), N.Y.	1911-1920	USC&GS	-
" " (the Battery), N. Y.	1927-1954	USC&GS	-
Norfolk, Va.	1873-1887	USCFF	91
North Charleston Terminals, Cooper River, S. C.	1951-1952	USC&GS	-

Location	Period	Source	Page
Old Point Comfort, Va.	1943-1954	USC&GS	-
Overfalls Lightship, Del.	1904-1909	USBF	72
Oyster Bayou Light Station, La.	1930-1934	USBF	141
Palm Beach, Fla.	1946	USC&GS	-
Pensacola, Fla.	1881-1889	USCFF	131
" "	1924-1954	USC&GS	-
" Lighthouse, Fla.	1930-1931	USBF	132
Petit Manan, Me.	1878-1902	USCFF	14
Philadelphia, Pa.	1923-46,'54	USC&GS	-
Point Au Fer Reef Light Station, La.	1930-1933	USBF	142
Point Lookout, Md.	1885-1891	USCFF	83
Pollock Rip, Mass.	1878-1900	USCFF	32
" " "	1925-1941	USBF	33
" " "	1948-1956	NWRC	34
Port Aransas (Pass), Tex.	1930-1931	USBF	151
Port Eads, La.	1881-1883	USCFF	139
Port Isabel, Tex.	1944-1955	USC&GS	-
Portland, Me.	1873-1888	USCFF	22
" "	1922-1945	USC&GS	-
" Lightship, Me.	1925-1941	USBF	23
" " "	* 1947-1956	NWRC	24
Portsmouth, N. H.	1944-1954	USC&GS	-
Provincetown, Mass.	1882-1884	USCFF	30
Pulpit Harbor, Me.	1945-1946	USC&GS	-
Punta Rassa, Fla.	1873-1883	USCFF	125
Race Point, Mass.	1878-85		
	1890-1901	USCFF	31
Rattlesnake Shoal Lightship, S. C.	1878-1895	USCFF	105
Richmond, Va.	1947-1954	USC&GS	-
Rockport, Tex.	1948-1954	USC&GS	-
Sabine Pass Light Station, La.	1930-1934	USBF	143
Sand Island, Mobile Bay, Ala.	1930-1933	USBF	133
Sandy Hook Lightship, N. J.	1878-1892	USCFF	60
" " , N. J.	1881-1886	USCFF	62
" " "	1887-1893	USC&GS	-
" " "	1944-1954	USC&GS	-
Savannah, Ga.	1873-1887	USCFF	112
" Lightship, Ga.	* 1947-1955	NWRC	111
Seguin Island, Me.	1878-1906	USCFF	21
Ship Island Lighthouse, Miss.	1930-1932	USBF	136
Ship Shoal, La.	1904-1905	USBF	140
Shreveport, La.	1873-1878	USCFF	144
Smithville, N. C.	1880-1886	USCFF	103
Solomons, Md.	1938-1954	USC&GS	-
Sombrero Key, Fla.	1925-1934	USBF	121
South Pass, La.	1933	USBF	138
Southport, N. C.	1946-1954	USC&GS	-

Location		Period	Source	Page
Stingray Point, Va.		1882-1922	USCFF	86, 87
St. Johns Lightship, Fla.		1929-1934	USBF	114, 115
" " " "		1947-1954	NWRC	116
St. Marks, Fla.		1877-1879	USCFF	129
St. Petersburg, Fla.		1947-1954	USC&GS	-
Stratford Shoal, Conn.		1878-1893	USCFF	54
Vineyard Sound Lightship, Mass.		1878-1910	USCFF	47
Washington, D. C.		1882-1907	USCFF	80
" "		1944-1954	USC&GS	-
Willets Point, N. Y.		1932-1954	USC&GS	-
Wilmington, N. C.		1873-1886	USCFF	104
Windmill Point, Va.		1881-1922	USCFF	84, 85
Winter Quarter Lightship, Va.	*	1878-1899	USCFF	73
" " " "	*	1925-1940	USBF	74
Wolf Trap Bar, Va.		1882-1892	USCFF	88
Woods Hole, Mass.		1880-1919	USCFF	)
" " "		1927-1929	USBF	)
" " "		1932-1941	USBF	) 44, 45, 46
" " "		1944-1956	USC&GS	)
York Spit, Va.		1882-1912	USCFF	90

References

Collier, A. (1954) A study of the response of oysters to temperature and some long range ecological interpretations. National Shell Fisheries Association, 1953 Convention papers; pp. 13-38.

Ketchen, K. S. (1956) Climatic trends and fluctuations in yield of marine fisheries of the Northeast Pacific. J. Fish. Res. Bd. Canada. 13 (3); 357-374.

Parr, A. E. (1933) A geographical-ecological analysis of the seasonal change in temperature conditions in shallow water along the Atlantic Coast of the United States. Bull. Bingham Oceanogr. Coll. 4 (3); 1-90.

Rathbun, R. (1887) Ocean temperatures of the eastern coast of the United States from observations made at twenty-four lighthouses and lightships. Fisheries and Fishing Industries of the United States. Appendix to section III. Washington.

Taylor, C. C., H. B. Bigelow and H. W. Graham. (1957) Climatic trends and the distribution of marine animals in New England. Fishery Bulletin of the Fish and Wildlife Service (in ed).

U. S. Department of Commerce, Coast and Geodetic Survey (1955). Surface water temperatures at tide stations, Atlantic coast, North and South America. Special Publication No. 278, Fifth ed. (with data through 1954) Washington.

Whitehouse, U. G., and A. N. Brown (1956). Analysis of air-sea surface boundary layer temperatures records (1930-1935) at fourteen fixed stations on the Gulf of Mexico. The A&M College of Texas, Department of Oceanography. Ref. 56-14T. (Unpublished manuscript).

Monthly and Annual Mean Surface Water Temperatures, °F

EASTPORT, MAINE 44° 54'N. 66° 59'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1874	-	-	-	-	39.7	43.6	47.2	50.2	51.2	-	47.0	40.9	-
1875	35.1	-	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	30.5	32.8	35.4	39.5	43.5	46.4	47.7	47.7	46.0	42.1	(40.2)
78	37.2	34.6	34.6	36.7	40.5	43.7	47.2	49.4	50.1	49.9	45.6	41.6	42.6
79	36.8	34.2	33.5	35.5	39.8	43.2	47.9	50.3	50.6	49.3	44.8	40.3	42.2
1880	36.3	34.6	-	36.8	40.3	44.0	48.3	50.8	52.0	50.6	47.0	41.1	43.0
1881	37.0	32.9	33.9	36.3	-	43.5	46.7	48.8	49.2	48.0	45.0	40.9	41.8
82	36.7	33.4	-	-	38.2	-	47.1	49.1	50.0	50.2	47.2	40.7	(43.0)
83	35.7	32.8	31.8	36.0	39.8	44.3	47.2	50.0	50.9	49.4	46.7	40.9	42.1
84	35.2	32.9	32.8	-	39.5	44.0	48.3	50.5	-	49.9	45.8	41.1	(42.3)
1885	37.3	34.0	33.4	36.3	39.2	43.2	48.0	52.0	51.9	51.2	48.2	43.6	43.2
1886	39.1	36.1	35.4	38.0	41.4	45.8	49.7	52.6	53.4	-	-	-	(44.1)
87	38.0	35.6	34.7	37.0	41.0	44.8	49.4	52.0	52.7	50.9	46.8	42.4	43.8
88	36.7	33.3	33.3	36.1	39.7	43.6	47.5	50.9	51.0	49.0	46.2	42.0	42.4
89	39.2	36.4	37.2	-	42.4	45.9	50.8	52.1	52.9	50.8	48.0	43.1	(44.6)
1890	39.0	34.8	35.9	35.6	42.4	46.5	49.9	52.7	53.5	51.0	-	-	(44.1)
	(14)	(13)	(12)	(11)	(14)	(14)	(15)	(15)	(14)	(13)	(13)	(13)	
Mean	37.1	34.3	33.9	36.1	40.0	44.0	47.9	50.5	51.2	49.8	46.5	41.6	42.7

April 1874 - Nov. 1880, Hayden Wharf; Dec. 1880 - Oct. 14, 1886, June 1887 - Oct 1890, South Side of Union Wharf; Jan. 1887 - May 1887, East side Gradys Wharf; Oct. 14, 1886 - Dec. 1886, No observation due to fire - wharf was destroyed.

One reading per day.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

MOOSE PEAK, MAINE 44° 28.5'N. 67° 32'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	44.5	47.7	48.9	50.3	50.2	-	-	-
79	-	-	-	-	-	-	47.9	-	-	-	-	-	-
Mean	-	-	-	-	-	44.5	47.8	48.9	50.3	50.2	-	-	-

Two readings per day, at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

PETIT MANAN ISLAND, MAINE 44° 22'03"N. 67° 51'51"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	51.5	51.4	51.8	51.4	46.3	37.4	-
79	-	-	-	-	-	-	51.5	50.3	51.3	50.3	42.2	-	-
1880	-	-	32.7	37.4	43.7	45.9	50.3	53.6	55.7	50.4	42.6	35.8	-
1881	32.3	32.1	35.3	39.2	48.2	46.3	51.0	50.9	-	46.6	44.6	38.0	(43.2)
82	28.0	31.7	36.2	41.2	46.4	47.6	50.8	54.7	56.8	55.7	52.5	32.5	44.5
83	33.4	34.2	33.4	39.5	46.8	50.8	53.7	52.9	53.2	49.8	44.3	39.9	44.3
84	32.4	30.0	33.1	40.5	46.6	51.1	54.4	57.4	57.1	52.0	46.2	36.5	44.8
1885	34.9	31.8	33.5	39.1	45.7	50.3	53.6	55.9	53.9	51.0	47.6	43.8	45.1
1886	38.2	34.4	37.9	44.1	50.0	53.8	54.3	54.2	54.0	52.7	48.0	40.6	46.8
87	35.5	34.1	34.1	38.4	43.4	48.8	53.0	54.6	53.9	51.0	45.9	39.4	44.3
88	33.5	31.0	33.7	41.2	45.9	50.5	53.5	55.4	55.0	53.6	50.7	47.5	46.0
89	41.2	33.8	34.6	38.3	45.4	49.4	52.6	54.7	54.8	54.2	52.2	49.9	46.8
1890	44.0	41.5	42.1	45.8	45.0	47.8	52.2	53.9	54.7	49.7	45.7	40.7	46.9
1891	34.3	33.5	33.2	37.2	42.2	44.0	50.5	52.0	51.4	47.9	44.9	41.3	42.7
92	37.0	35.0	35.7	38.8	42.7	46.3	49.0	51.8	51.0	48.8	44.4	40.0	43.4
93	35.2	32.3	33.6	36.9	42.1	46.5	49.8	52.5	52.0	50.1	46.6	40.9	43.2
94	34.2	33.0	35.0	38.7	42.6	48.0	53.0	51.5	51.0	50.1	43.8	35.1	43.0
1895	34.0	33.3	34.0	37.4	43.3	47.0	47.6	52.4	53.3	47.8	43.7	38.5	42.7
1896	35.0	33.4	33.8	39.9	44.9	47.7	51.2	54.0	53.4	50.2	43.7	37.8	43.8
97	35.2	33.0	34.4	39.5	42.8	47.8	51.0	54.5	52.9	48.1	44.3	37.5	43.4
98	34.0	33.7	35.8	38.3	42.6	47.2	51.5	53.6	52.9	49.0	44.4	38.7	43.5
99	33.8	33.3	35.1	37.7	45.5	47.7	-	51.0	52.9	51.6	46.6	39.9	(43.9)
1900	33.3	32.8	33.2	37.8	45.2	48.6	51.9	54.1	54.3	50.9	48.6	43.5	44.5
1901	35.3	30.7	33.6	38.7	47.2	52.4	54.9	54.8	52.8	(46.5)	42.2	36.2	43.8
02	32.4	34.2	37.0	39.6	43.7	48.2	55.4	-	-	-	-	-	-
Mean	(22) 34.9	(22) 33.3	(23) 34.8	(23) 39.4	(23) 44.9	(23) 48.4	(24) 52.0	(24) 53.4	(23) 53.5	(24) 50.4	(24) 45.9	(23) 39.6	44.2

Two readings per day, at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

MOUNT DESERT ROCK — 43° 58'08"N. 68° 07'44"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	49.8	49.8	50.6	-	-	-	-
79	-	-	-	-	43.3	44.6	-	-	-	-	-	-	-
1880	-	-	-	-	-	-	51.4	51.8	49.7	45.4	38.5	33.4	-
1881	-	-	-	-	-	-	-	-	-	-	41.9	37.1	-
82	37.9	34.7	35.8	37.5	39.6	-	-	50.1	49.4	49.5	45.6	-	-
83	-	-	-	37.9	41.0	-	-	-	50.2	46.5	45.2	40.0	-
84	36.4	-	-	38.1	41.3	45.2	49.6	-	-	48.5	43.9	41.6	-
1885	-	-	-	-	40.1	44.3	50.3	54.2	51.6	49.4	47.5	-	-
1886	-	37.5	36.0	37.5	41.5	44.7	-	51.1	51.3	50.9	48.4	44.7	-
87	-	-	38.2	-	44.0	45.5	49.2	53.8	53.5	52.8	46.6	44.6	-
88	-	-	-	-	40.4	43.9	48.7	52.1	51.0	48.7	-	41.7	-
89	-	-	37.8	-	41.8	47.1	54.8	54.2	54.5	49.4	48.6	44.6	-
1890	-	-	-	39.4	42.4	45.8	49.4	-	-	-	-	-	-
1891	-	-	-	-	41.7	46.6	49.6	-	-	-	44.8	-	-
92	-	-	-	-	41.3	45.4	49.8	58.3	54.2	49.7	46.2	-	-
93	-	-	37.1	-	-	45.4	45.5	47.2	49.8	48.9	-	-	-
94	38.0	-	37.2	-	40.7	44.8	47.8	51.9	51.8	-	47.3	44.6	-
1895	-	-	-	-	42.0	44.4	48.1	49.6	50.3	51.5	50.3	-	-
1896	-	-	36.8	37.8	42.7	45.8	50.9	52.7	-	-	48.7	45.9	-
97	-	-	37.0	40.4	44.7	48.2	50.9	54.9	54.5	49.9	47.2	44.0	-
98	41.1	-	37.9	39.0	41.6	45.7	49.7	-	51.2	47.6	-	-	-
99	-	-	-	40.2	42.4	44.4	50.4	-	52.3	-	-	-	-
1900	-	-	-	-	-	49.0	-	-	-	51.0	48.7	43.5	-
1901	-	36.4	-	-	42.3	45.1	49.1	50.5	51.8	-	-	43.1	-
02	-	-	-	-	-	-	-	-	47.0	-	-	-	-
03	-	-	-	-	-	-	48.5	-	-	-	-	-	-
	(4)	(3)	(9)	(9)	(19)	(20)	(19)	(15)	(18)	(15)	(16)	(13)	
Mean	38.4	36.2	36.9	38.6	41.8	45.6	49.7	52.1	51.4	49.3	46.2	42.3	44.0

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

MOUNT DESERT ROCK 43° 58'08"N. 68° 07'44"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	46.1	-	52.7	48.3	45.0	42.5	40.0	-
1926	36.0	35.0	35.6	35.8	42.6	46.7	48.7	52.8	51.0	49.9	44.3	39.6	43.2
27	38.3	36.0	35.3	37.5	41.8	-	-	-	-	49.6	45.4	39.4	(43.8)
28	36.5	36.1	37.2	39.3	43.3	47.3	51.8	54.4	54.1	49.5	46.6	40.1	44.7
29	37.4	37.1	38.8	38.3	42.7	48.0	49.6	54.6	52.2	48.8	43.6	40.2	44.3
1930	35.4	35.0	35.6	38.4	45.8	47.9	-	52.2	51.1	49.5	48.0	-	(44.2)
1931	-	-	-	-	-	49.2	51.5	51.6	50.2	48.0	45.8	42.6	-
32	-	-	-	-	41.3	44.1	47.5	54.5	53.0	-	46.9	41.1	-
33	38.5	37.3	37.2	38.6	40.8	44.7	49.8	52.4	50.6	48.5	43.6	40.0	43.5
34	36.2	32.7	33.1	35.3	39.5	45.4	50.6	52.3	51.8	48.5	44.9	40.0	42.5
1935	36.4	34.1	34.4	35.3	38.6	43.3	48.6	54.2	52.0	49.0	47.3	43.7	43.1
1936	39.2	36.0	38.3	40.1	42.3	45.3	47.6	52.6	51.9	49.2	45.8	42.8	44.2
37	40.0	38.8	37.3	41.2	43.5	47.8	51.2	54.5	53.8	49.9	47.6	43.3	45.7
38	38.6	38.8	37.1	-	44.1	47.8	50.6	53.7	52.5	51.4	48.8	45.5	(45.7)
39	40.3	39.2	38.6	39.7	42.7	46.3	52.2	55.7	53.1	48.6	45.0	40.2	45.1
1940	37.0	37.0	36.9	41.2	44.8	47.4	-	-	-	-	-	-	-
	(13)	(13)	(13)	(12)	(14)	(15)	(12)	(14)	(14)	(14)	(15)	(14)	
Mean	37.7	36.4	36.6	38.4	42.4	46.5	50.0	53.4	51.8	49.7	45.7	41.3	44.2

Readings daily at 8 A.M. and 6 P.M.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

MOUNT DESERT ROCK LIGHTHOUSE 43° 58'N. 68° 08'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1952	-	-	-	-	-	-	-	56.0	54.3	51.3	47.9	45.4	(48.0)
53	39.4	39.1	39.1	43.8	46.6	52.0	54.2	55.8	55.6	53.2	51.4	48.2	48.2
54	45.8	45.9	40.9	42.5	44.6	46.5	53.5	57.8	56.2	51.7	48.3	45.2	48.2
1955	44.0	40.6	40.6	41.2	42.4	45.2	45.4	45.2	43.5	43.3	42.0	39.3	42.7
	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)	(4)	(4)	(4)	
Mean	43.1	41.9	40.2	42.5	44.5	47.9	51.0	53.7	52.4	49.9	47.4	44.5	46.6

Readings at 8 am and 6 pm.

Source - USFWS

Monthly and Annual Mean Surface Water Temperatures, °F

MATINICUS ROCK, MAINE 43° 47' 01"N. 68° 51'20"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	51.2	55.5	-	-	-	-	-
79	-	-	-	-	41.2	46.4	51.6	53.5	-	-	-	-	-
1880	-	-	-	-	42.1	49.1	52.9	54.9	54.5	-	-	-	-
1881	-	-	-	-	43.1	47.5	51.3	-	51.2	-	-	-	-
82	-	-	-	-	40.0	47.2	50.0	53.2	-	-	-	-	-
83	-	-	-	35.7	40.3	45.4	51.7	53.9	51.5	-	-	-	-
84	-	-	-	-	-	46.7	51.6	52.8	-	-	-	-	-
1885	-	-	-	37.4	41.2	45.5	51.9	54.0	53.5	-	-	-	-
1886	-	-	-	39.1	44.3	48.8	52.3	54.6	-	-	-	-	-
87	-	-	-	-	42.2	46.9	54.9	56.2	54.0	-	-	-	-
88	-	-	-	38.2	42.0	46.6	51.8	54.1	53.2	-	-	-	-
89	-	-	-	-	45.0	47.9	50.7	54.7	-	-	-	-	-
1890	-	-	-	39.0	44.1	48.1	53.1	55.7	55.0	-	-	-	-
1891	-	-	-	38.5	42.1	46.2	51.6	53.8	54.4	-	-	-	-
92	-	-	-	39.0	43.6	-	56.4	57.6	-	-	-	-	-
93	-	-	-	-	41.5	44.6	51.1	54.7	54.7	-	-	-	-
94	-	-	-	-	44.2	47.3	51.1	54.2	56.0	-	-	-	-
1895	-	-	-	-	-	47.4	50.8	52.9	54.2	-	-	-	-
1896	-	-	-	38.1	43.2	51.2	54.0	55.7	-	-	-	-	-
97	-	-	-	40.2	-	46.7	53.9	56.0	56.2	54.6	-	-	-
98	-	-	37.8	-	42.4	47.3	53.8	57.2	56.8	55.4	-	-	-
99	-	-	-	39.8	43.2	48.3	52.2	56.5	57.2	55.8	-	-	-
1900	-	-	-	-	44.8	48.0	50.6	52.9	54.4	51.7	-	-	-
1901	-	-	-	-	41.0	45.0	48.8	52.6	54.5	51.4	-	-	-
02	-	-	-	38.6	40.8	44.0	46.0	48.4	49.8	-	-	-	-
03	-	-	-	-	41.5	44.2	46.5	48.6	50.4	-	-	-	-
04	-	-	-	-	-	43.2	46.2	49.0	49.8	-	-	-	-
1905	-	-	36.6	39.0	41.2	44.3	47.9	50.4	49.5	47.6	-	-	-
1906	-	-	-	-	43.6	46.3	49.5	52.2	-	-	-	-	-
07	-	-	-	-	39.8	42.1	46.8	-	-	-	-	-	-
Mean	-	-	(2) 37.2	(12) 38.6	(25) 42.3	(28) 46.5	(30) 51.1	(28) 53.8	(20) 53.5	(6) 52.8	-	-	-

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BOOTHBAY HARBOR, MAINE 43° 51'N. 69° 38'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1905	-	-	32.7	38.0	44.2	52.7	59.4	60.1	54.3	47.9	41.4	35.8	-
1906	34.9	31.4	31.3	37.7	44.9	51.7	58.5	62.1	55.7	49.0	42.3	35.5	44.6
07	32.2	29.0	32.2	37.4	42.9	51.5	57.7	59.7	57.3	48.4	43.1	39.0	44.2
08	36.2	32.4	34.8	40.1	50.0	56.3	62.4	62.9	58.9	53.1	44.1	37.2	47.4
09	33.7	32.3	35.5	40.7	47.8	58.1	61.2	62.6	59.0	53.4	45.3	38.5	47.3
1910	34.6	33.5	37.2	45.3	50.0	57.2	64.0	63.1	59.4	50.9	46.7	36.4	48.2
1911	34.9	31.5	34.3	40.0	49.1	55.8	64.8	61.2	56.4	50.1	44.0	39.5	46.8
12	31.7	30.4	33.2	38.9	47.1	54.1	61.6	62.0	57.3	50.7	44.8	38.9	45.9
13	36.6	33.4	35.7	40.7	46.3	54.0	61.7	61.3	56.9	53.4	47.5	41.8	47.4
14	34.1	29.9	31.9	37.1	46.0	53.0	58.4	59.8	56.4	50.4	42.1	34.6	43.6
1915	31.4	30.7	33.1	39.9	45.3	54.4	60.1	58.8	57.2	47.7	41.8	36.3	44.7
1916	33.0	31.3	30.8	38.3	45.0	52.9	59.4	59.4	54.6	47.3	41.3	35.4	44.1
17	33.0	29.9	31.9	36.6	40.6	51.3	59.8	62.6	53.9	48.0	40.3	31.9	43.3
18	28.1	29.5	33.0	38.8	49.0	54.0	62.3	62.0	56.6	49.8	44.3	37.5	45.4
19	34.5	34.5	36.8	41.6	48.5	58.3	62.8	60.5	57.3	50.4	44.1	36.8	47.2
1920	29.9	29.4	35.6	39.7	49.7	55.5	61.6	64.1	57.0	53.5	43.8	39.8	46.6
1921	35.4	33.2	36.7	43.1	50.7	57.1	63.4	60.7	59.3	51.4	42.7	37.2	47.6
22	31.8	31.0	34.9	41.6	49.4	58.1	63.9	62.4	59.0	49.4	41.6	33.4	46.4
23	30.1	29.8	30.5	38.5	49.0	55.4	59.6	58.5	57.8	50.0	44.3	40.4	45.3
24	34.3	30.9	34.5	39.2	46.9	54.6	61.5	61.1	56.9	50.4	43.8	35.8	45.8
1925	29.6	31.5	35.5	40.6	48.0	55.5	61.4	61.2	56.1	46.8	41.5	36.8	45.4
1926	32.7	29.8	32.2	36.1	45.0	54.0	61.2	61.4	56.3	50.3	43.5	35.6	44.8
27	33.4	32.5	34.5	38.6	47.1	55.7	60.9	60.4	56.8	51.1	44.6	38.7	46.2
28	36.0	33.0	34.9	39.1	46.6	55.0	63.1	64.6	57.4	51.7	43.8	38.0	46.9
29	34.5	33.1	33.7	37.7	46.1	58.8	57.9	58.7	55.5	49.0	42.6	32.7	45.0
1930	32.3	31.2	33.1	39.5	47.2	57.7	62.6	60.9	57.2	53.7	45.5	37.8	46.6
1931	38.0	36.5	38.7	43.5	48.1	59.6	64.2	60.4	58.0	50.1	45.2	38.3	48.4
32	36.2	36.0	35.9	40.2	45.7	54.1	58.7	62.5	56.9	50.5	46.5	38.9	46.8
33	38.0	38.0	38.2	41.6	50.3	57.1	61.6	62.1	55.8	48.3	42.8	35.5	47.4
34	31.8	30.1	31.9	41.1	50.2	56.6	61.5	60.0	59.1	46.9	41.3	36.2	45.6
1935	32.0	32.0	34.8	41.1	47.0	56.5	62.4	62.3	57.4	50.9	45.2	37.9	46.6
1936	33.7	31.3	37.4	40.7	46.0	53.1	60.5	61.6	57.3	48.0	39.3	36.0	45.4
37	36.0	36.0	37.5	41.3	48.7	56.6	61.5	64.2	57.9	51.1	45.0	41.7	48.1
38	34.4	31.7	32.3	37.5	43.8	56.0	59.6	60.2	54.3	49.8	43.8	37.3	45.1
39	34.1	32.0	32.0	34.6	44.4	49.8	57.1	60.0	54.7	48.0	40.9	33.7	43.4
1940	31.4	29.1	30.0	36.2	47.9	51.9	59.5	58.9	56.3	49.2	45.0	39.7	44.6

(continued)

BOOTHBAY HARBOR, MAINE - Continued

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1941	36.2	33.2	35.5	41.7	48.3	53.2	60.6	57.0	52.1	50.4	44.8	39.5	46.0
42	34.6	32.0	33.9	39.8	49.8	56.3	60.1	60.0	57.3	52.8	45.0	37.4	46.6
43	32.8	32.9	33.6	37.0	46.1	53.1	55.5	59.9	54.7	51.7	46.7	40.1	45.3
44	34.1	34.0	34.0	38.6	48.2	52.9	60.8	60.5	58.7	51.0	45.8	39.2	46.5
1945	36.5	33.6	35.8	43.5	47.6	53.5	59.8	61.7	58.3	51.0	45.7	37.1	47.0
1946	33.5	33.7	37.5	40.4	46.5	53.6	60.3	60.4	58.8	52.5	47.7	41.3	47.2
47	36.5	35.6	36.5	41.1	46.7	54.0	63.2	63.4	60.5	55.9	48.6	40.0	48.5
48	34.6	32.4	34.8	40.5	47.5	53.6	60.5	61.2	56.9	48.0	47.6	42.5	46.7
49	38.4	36.0	37.0	42.9	50.9	57.3	-	-	-	-	49.7	44.3	-
1950	42.2	38.1	38.0	40.7	47.9	55.7	61.8	63.0	57.5	53.7	50.2	45.9	49.6
1951	43.0	39.4	40.5	44.6	51.3	57.7	63.1	63.7	61.9	55.0	51.1	46.2	51.5
52	41.4	39.6	39.6	43.5	49.5	56.3	62.8	62.6	60.6	54.3	46.9	43.7	50.1
53	40.5	41.9	43.0	45.5	52.2	57.7	62.8	62.8	61.0	55.4	51.3	48.4	51.9
54	39.6	38.3	40.8	44.6	50.5	57.0	60.5	59.8	58.7	55.8	50.6	46.6	50.2
1955	42.1	38.4	39.6	44.4	50.7	56.5	62.2	62.7	59.0	54.8	49.8	40.8	50.1
	(49)	(49)	(50)	(50)	(50)	(50)	(49)	(49)	(49)	(49)	(50)	(50)	
Mean	34.6	33.1	35.1	40.2	47.6	55.1	61.0	61.3	57.3	50.9	45.0	38.6	46.7

Boothbay Harbor Fisheries Station Wharf. Records since May 1951 based on hourly readings of continuous thermograph.

Source - USFWS

Monthly and Annual Mean Surface Water Temperatures, °F

SEGUIN ISLAND 43° 42'26"N. 69° 45'32"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	52.3	55.2	56.1	56.8	-	-	39.5	-
79	35.9	33.8	33.8	36.6	-	51.1	54.8	57.4	55.6	50.9	43.1	35.8	(44.5)
1880	32.6	35.0	35.4	39.1	47.2	53.4	56.0	55.9	56.4	49.8	43.7	38.3	45.2
1881	34.0	33.8	34.0	37.8	44.7	50.1	52.4	55.9	56.2	49.7	44.6	41.0	44.5
82	37.4	35.8	34.3	37.5	43.2	51.6	54.9	56.3	54.5	51.4	45.7	37.6	45.0
83	31.8	31.4	32.8	37.8	44.6	53.2	56.2	55.2	53.2	48.4	44.6	37.6	43.9
84	32.3	31.9	32.8	37.5	45.6	52.2	55.0	56.7	55.4	50.4	44.4	38.6	44.4
1885	33.8	30.2	31.2	37.1	44.8	49.9	57.4	55.5	54.0	50.4	46.7	41.1	44.3
1886	34.6	32.6	32.9	37.3	43.9	50.4	56.0	56.8	56.5	51.3	46.5	39.4	44.8
87	36.2	34.0	35.0	37.6	46.0	51.5	56.3	58.2	54.5	50.5	45.2	41.1	45.5
88	34.2	32.4	32.6	36.4	43.7	50.9	53.3	56.1	54.7	49.1	44.4	40.2	44.0
89	38.6	34.4	36.8	-	-	54.3	56.8	55.6	55.6	50.3	45.7	41.9	(46.1)
1890	36.9	35.9	34.7	39.8	47.5	54.5	60.0	60.9	59.6	52.2	44.3	34.6	46.7
1891	32.3	33.3	-	-	43.9	51.6	52.2	54.9	54.2	49.1	-	39.2	(44.0)
92	34.2	33.2	33.2	38.7	43.2	51.4	-	56.0	55.0	-	-	-	(44.6)
93	-	-	-	37.5	44.0	51.0	55.6	-	53.2	51.4	-	38.8	-
94	-	32.9	34.6	-	-	51.9	-	-	-	-	-	39.8	-
1895	36.3	-	34.6	40.0	-	52.4	-	-	-	-	-	-	-
1896	-	-	-	-	-	-	-	-	-	51.0	-	-	-
97	36.6	-	-	-	-	-	-	-	-	-	-	-	-
98	38.2	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	53.4	-	-	-	-	-	-	-
	(17)	(15)	(15)	(14)	(13)	(19)	(15)	(15)	(16)	(15)	(12)	(15)	
Mean	35.0	33.4	33.9	37.9	44.8	52.0	55.5	56.5	55.3	50.4	44.9	38.9	44.9

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

PORTLAND, MAINE 43° 39'20"N. 70° 14'38"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	60.6	56.5	52.5	42.4	35.0	-
74	33.9	30.4	-	37.4	45.8	55.1	58.9	59.3	57.5	53.4	46.4	36.9	(46.6)
1875	30.2	30.5	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	36.0	42.2	48.7	55.3	58.2	62.5	59.0	52.2	45.6	40.3	(47.0)
78	33.9	33.4	37.2	43.8	49.8	56.7	60.9	60.7	59.8	53.5	44.4	38.8	47.7
79	33.0	31.8	32.9	37.2	47.8	52.9	55.9	59.5	-	57.5	42.4	37.7	(45.5)
1880	33.1	32.5	33.0	37.0	48.0	56.4	60.6	59.7	58.6	51.4	44.3	34.8	45.8
1881	31.3	31.2	35.7	40.7	-	56.0	60.7	61.5	59.6	-	44.5	38.4	(46.6)
82	33.1	32.9	-	-	45.5	-	58.5	59.9	57.4	53.1	44.4	35.4	(45.7)
83	30.9	30.5	32.0	38.5	43.7	53.0	61.6	61.4	55.4	50.8	45.7	35.8	44.9
84	31.1	31.9	33.6	41.4	46.9	54.9	-	-	-	51.6	43.2	37.0	(45.8)
1885	33.9	31.4	32.0	37.9	46.7	53.1	60.2	62.5	55.5	51.8	45.6	38.5	45.8
1886	33.1	31.8	33.7	41.9	49.9	56.0	59.4	59.7	58.9	52.3	45.5	35.6	46.5
87	31.5	33.0	34.7	40.2	49.7	55.0	61.6	61.4	56.9	51.5	44.0	39.1	46.6
88	-	31.0	32.6	38.6	46.2	-	57.0	60.0	56.9	49.9	-	-	-
	(12)	(13)	(11)	(12)	(12)	(11)	(12)	(13)	(12)	(13)	(13)	(13)	
Mean	32.4	31.7	33.9	39.7	47.4	54.9	59.4	60.7	57.7	52.4	44.5	37.2	46.0

April 1873 - February 1875, Grand Trunk Railroad Wharf; March 1887 - February 1879, Casco Bay, foot of Grand Trunk Wharf; March 1879 - October 1888, Foot of Custom House Wharf, Portland Harbor.

Readings once per day

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

PORTLAND LIGHTSHIP 43° 31.5'N. 70° 05.5'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	52.7	56.7	58.2	55.8	47.3	43.0	39.6	-
1926	38.0	36.4	36.4	40.2	48.6	-	-	-	-	-	-	40.0	-
27	36.7	35.0	34.5	39.1	44.2	52.6	57.0	58.0	55.9	51.1	46.8	42.5	46.1
28	40.9	37.7	37.4	38.9	44.9	52.1	-	-	57.3	52.3	47.2	43.6	(47.4)
29	40.3	36.0	35.6	38.4	43.9	55.7	54.9	56.0	55.5	49.5	45.1	39.4	45.8
1930	35.7	34.0	33.6	37.2	44.2	-	60.4	60.2	58.4	50.8	45.6	41.4	46.0
1931	38.2	34.1	32.3	36.3	42.2	51.2	57.0	57.5	55.6	50.8	44.4	40.0	45.0
32	37.0	36.0	34.5	36.6	43.4	48.6	-	-	-	-	44.8	40.6	(45.4)
33	37.9	36.8	38.2	39.8	47.2	53.2	55.7	-	-	49.0	43.0	37.6	(46.1)
34	33.4	30.8	29.5	34.0	42.2	49.0	57.6	55.5	54.3	48.3	44.5	40.6	43.3
1935	35.2	29.6	31.2	35.1	42.7	52.7	58.8	61.5	56.9	-	-	41.5	(45.4)
1936	39.1	36.1	36.6	38.1	46.1	54.0	58.8	60.3	56.4	51.4	46.5	41.8	47.1
37	39.1	36.2	36.5	38.4	48.0	56.5	62.6	62.1	58.2	51.3	46.2	46.2	48.4
38	36.6	35.6	36.3	40.5	46.5	55.0	57.0	-	55.2	49.8	43.2	38.7	(46.1)
39	34.9	33.1	34.3	35.3	39.3	-	-	61.6	58.1	51.5	44.0	38.6	(45.1)
1940	35.6	34.1	35.0	35.6	45.3	52.4	55.6	56.4	-	-	-	-	(45.5)
1941	-	-	-	-	-	-	-	-	54.5	-	-	-	-
	(15)	(15)	(15)	(15)	(15)	(13)	(12)	(11)	(13)	(12)	(13)	(15)	
Mean	37.2	34.8	34.8	37.6	44.6	52.7	57.7	58.8	56.4	50.3	48.7	40.8	46.2

Two readings per day at 8 A.M. and 6 P.M.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

PORTLAND LIGHTSHIP 43° 32'N. 70° 06'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	-	-	-	-	-	-	45.4	-
48	41.8	38.4	37.2	38.3	43.4	51.0	58.6	60.8	-	-	48.3	44.3	-
49	40.0	40.0	37.9	41.3	44.8	50.6	61.6	62.6	58.4	-	-	-	-
1950	42.6	37.5	35.7	39.1	45.4	50.7	57.0	60.8	56.8	53.2	-	-	-
1951	41.4	38.7	38.5	40.6	47.6	53.4	61.2	-	-	-	43.0	38.6	-
52	36.6	35.1	35.8	41.5	46.2	51.1	60.1	-	-	-	-	-	-
53	38.5	37.9	39.9	42.4	49.2	55.6	61.0	61.4	-	-	50.2	46.8	-
54	39.3	-	38.5	41.0	45.8	53.9	57.0	57.6	56.1	-	-	44.7	-
1955	41.4	38.4	38.1	41.4	47.0	54.1	62.6	62.8	-	55.3	49.8	43.8	-
1956	39.2	37.7	36.9	38.6	43.1	50.4	52.8	60.1	-	-	-	-	-
	(9)	(8)	(9)	(9)	(9)	(9)	(9)	(7)	(3)	(2)	(4)	(6)	
Mean	40.1	38.0	37.6	40.5	45.8	52.3	59.7	60.9	57.1	54.2	47.8	43.9	48.2

Readings at 0130, 0730, 1330, and 1930 EST.

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

BOON ISLAND 43° 07'N. 70° 28'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	55.5	61.7	58.7	-	-	-	-	-
79	-	-	-	-	46.4	-	-	63.0	59.3	55.2	-	-	-
1880	-	-	-	-	-	59.0	60.6	58.6	-	-	-	-	-
1881	-	-	-	-	-	-	57.3	-	-	-	-	-	-
82	-	-	-	-	-	49.5	-	58.4	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	52.5	-	59.6	-	52.5	-	-	-
1885	-	-	-	-	42.0	50.0	60.0	61.3	56.1	-	-	-	-
1886	-	-	-	41.5	50.1	53.7	61.6	60.9	56.6	-	-	-	-
87	-	-	-	39.9	48.8	54.9	60.8	61.4	55.9	51.5	-	-	-
88	-	-	-	39.2	47.6	59.4	59.9	61.2	57.8	-	-	39.4	-
89	39.1	-	-	40.3	48.8	58.7	61.0	61.2	58.2	-	-	-	-
1890	42.1	-	39.7	40.8	-	56.6	62.0	62.0	61.3	-	48.7	-	-
1891	-	-	-	40.7	45.8	53.2	61.2	61.9	60.2	57.1	-	44.4	-
92	-	-	38.0	39.9	45.6	53.4	60.9	62.9	61.6	54.2	-	42.4	-
93	-	-	-	39.6	44.8	50.9	60.3	59.4	57.0	-	-	-	-
94	-	38.0	38.3	42.0	45.5	51.2	60.0	61.5	56.8	-	-	-	-
1895	-	37.3	37.9	-	48.1	55.9	61.8	62.5	57.4	51.4	-	-	-
1896	-	-	-	41.4	48.6	55.4	61.5	62.8	-	-	-	-	-
97	-	-	-	-	-	54.6	60.2	63.2	59.6	-	-	44.6	-
98	-	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	41.9	-	52.4	59.1	62.6	-	56.2	50.7	-	-
1900	-	-	41.1	44.6	47.4	51.3	57.6	63.2	-	-	-	-	-
1901	-	-	-	-	-	51.5	56.1	63.4	62.6	59.1	-	-	-
02	-	-	-	-	48.8	51.4	56.0	62.2	-	-	-	-	-
03	-	-	-	-	-	52.8	56.1	59.5	63.7	-	-	-	-
04	-	-	-	-	49.1	53.4	57.6	60.4	63.8	-	-	-	-
1905	-	-	37.2	44.0	-	53.0	57.6	60.6	62.9	62.3	-	-	-
1906	-	-	-	-	-	53.7	-	62.6	-	-	-	-	-
07	-	-	-	-	44.8	53.0	59.8	62.4	-	-	-	-	-
08	-	-	-	-	42.5	51.1	57.2	-	61.8	-	-	-	-
	(2)	(2)	(6)	(13)	(17)	(27)	(25)	(27)	(18)	(9)	(2)	(4)	
Mean	40.6	37.6	38.7	41.2	46.7	53.6	59.5	61.4	59.6	55.5	49.7	42.7	48.9

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

CAPE ANN, MASSACHUSETTS 42° 38.3'N. 70° 34.5'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	59.7	58.7	54.0	47.2	41.7	-
79	36.5	34.6	35.0	37.5	45.3	54.7	58.6	-	-	-	-	-	-
1880	-	-	-	-	-	-	60.3	58.6	58.2	52.0	46.0	39.1	-
1881	34.5	33.1	35.0	38.8	46.3	54.8	60.9	61.2	60.9	53.6	46.2	39.9	47.1
82	35.5	37.0	-	-	45.2	-	63.6	59.6	57.3	54.1	47.3	40.2	(47.4)
83	34.8	34.4	35.0	39.6	45.9	55.5	59.2	-	-	-	-	-	-
	(4)	(4)	(3)	(3)	(4)	(3)	(5)	(4)	(4)	(4)	(4)	(4)	
Mean	35.6	34.8	35.0	38.6	45.7	55.0	60.5	59.8	58.8	53.4	46.7	40.2	47.0

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

GLOUCESTER, MASSACHUSETTS 42° 36'N. 70° 39'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	53.5	57.8	-	62.9	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	55.7	44.1	38.9	-
1880	35.9	34.3	37.5	40.8	52.7	60.1	64.2	63.7	59.9	51.6	42.9	35.3	48.2
1881	32.9	33.8	35.9	39.7	49.4	56.4	66.0	67.2	62.8	52.1	46.4	38.6	48.4
82	32.7	-	36.8	45.6	49.0	55.6	62.8	66.1	54.6	49.0	43.6	32.9	(46.7)
83	-	-	-	41.3	48.4	62.1	73.1	63.0	53.9	47.8	41.4	34.9	(47.0)
84	28.5	31.4	33.5	41.0	48.7	58.2	67.2	69.8	64.3	53.0	44.2	36.0	48.0
1885	32.5	-	-	37.2	48.9	61.3	69.2	68.9	66.5	53.1	45.7	39.9	(49.1)
1886	32.4	30.0	31.7	40.9	50.7	62.0	69.4	68.0	55.2	44.9	46.4	39.4	47.6
87	32.3	30.5	34.1	40.6	48.0	56.9	64.8	69.8	64.2	52.2	44.0	39.9	48.1
88	33.8	28.6	32.8	39.2	47.6	56.8	63.8	65.3	58.8	50.6	45.9	-	(46.8)
89	39.2	-	-	-	-	-	-	-	-	51.2	47.2	42.9	-
1890	38.7	37.4	37.6	41.8	-	-	-	-	-	-	46.7	37.4	-
1891	35.2	36.9	-	-	-	-	-	-	-	-	-	41.9	-
92	37.8	35.0	34.7	-	-	-	-	-	-	-	-	-	-
93	-	32.4	-	-	-	-	-	-	-	-	-	-	-
	(12)	(10)	(9)	(10)	(10)	(10)	(9)	(10)	(9)	(11)	(12)	(12)	
Mean	34.3	33.0	35.0	40.8	49.7	57.7	66.7	66.5	60.0	51.0	44.9	38.2	48.1

Gloucester Harbor Fort Wharf. Sept, 1883, East Gloucester; June 1885, Gloucester; Jan. 1888, East Gloucester; April 1888 Hatchery

Readings at first high water and first low water after 7 a.m. until April 1888, thence at 7 a.m., 12 m. and 5 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BOSTON, MASS. 42°22'N. 71°03'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	60.0	51.9	39.2	35.6	-
74	35.3	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-	-
78	-	-	-	-	-	-	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-	-
1881	-	-	-	-	-	60.1	63.1	64.1	65.8	-	-	38.8	-
82	-	32.7	-	-	49.1	-	65.9	64.0	62.3	56.3	45.3	34.7	(48.6)
83	31.3	31.4	32.4	41.7	52.7	61.3	-	63.2	61.9	52.4	45.8	-	(48.1)
84	30.8	33.0	35.1	41.8	51.7	-	62.3	-	61.2	54.4	38.9	-	(47.7)
85	33.0	29.2	31.2	42.2	51.2	58.9	66.1	67.7	60.1	53.8	45.9	36.4	48.0
1886	31.9	31.8	34.8	46.0	55.2	58.9	67.2	64.5	64.0	53.9	46.2	-	(49.3)
87	30.6	32.8	34.4	42.5	55.5	61.3	66.2	-	62.2	54.9	47.6	37.2	(49.2)
88	33.8	32.6	34.0	40.7	48.0	60.0	64.2	66.3	62.7	51.0	45.6	38.0	48.1
89	38.8	34.1	37.9	45.4	56.0	60.7	65.6	63.6	65.1	51.6	48.4	42.2	50.8
90	39.6	36.9	38.4	45.2	54.1	62.8	66.4	65.2	63.8	54.5	-	-	-
	(9)	(9)	(8)	(8)	(9)	(8)	(9)	(8)	(11)	(10)	(9)	(7)	
Mean	33.9	32.7	34.8	43.2	52.6	60.5	65.2	64.8	62.6	53.5	44.8	37.6	48.8

1873 - Long Wharf; 1881 - Rowes Wharf, Boston Harbor.

One reading per day at 2 p.m., Washington Time

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BOSTON LIGHTSHIP 42°20'N 70°45'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	56.6	60.3	64.4	60.0	-	45.2	41.0	-
1926	37.0	34.5	33.8	36.7	45.6	-	-	-	-	-	-	41.8	-
27	38.5	37.3	34.0	37.3	44.2	51.8	56.3	62.2	60.5	55.1	48.4	43.3	47.4
28	39.2	36.4	36.6	39.8	47.5	55.3	58.5	62.0	60.6	53.4	49.8	44.6	48.6
29	39.9	37.5	37.2	40.2	45.3	58.3	58.4	57.9	60.5	52.9	49.4	42.1	48.3
30	37.9	34.8	35.8	38.4	47.8	53.6	59.7	61.6	61.3	53.9	48.4	44.2	48.1
1931	39.8	36.1	36.8	41.0	46.2	56.5	60.2	60.8	61.1	54.5	49.5	44.2	48.9
32	40.0	37.7	36.4	39.8	48.3	54.9	58.0	59.4	59.5	54.1	49.3	44.8	48.5
33	41.0	38.4	37.7	39.4	47.7	55.6	61.3	64.0	60.9	55.0	47.3	41.2	49.1
34	36.0	32.9	33.2	39.5	45.2	56.3	61.8	60.5	60.3	54.6	47.8	43.6	47.6
35	37.5	34.0	35.5	38.5	44.4	53.7	62.1	63.5	58.9	53.8	50.0	43.3	47.9
1936	38.3	33.6	35.5	40.3	46.6	56.0	62.0	61.9	57.1	49.5	42.7	36.9	46.7
37	38.7	38.3	37.1	39.8	48.0	58.0	65.4	65.2	62.5	54.8	47.5	42.4	49.8
38	38.4	37.0	37.9	42.3	48.4	57.3	59.5	63.6	60.8	54.4	47.3	44.6	49.3
39	39.3	36.6	36.1	38.4	47.2	57.1	63.5	63.5	60.8	54.4	47.3	42.0	48.8
40	36.1	31.5	32.7	37.5	-	56.9	63.9	-	60.8	55.1	48.5	42.9	(47.9)
1941	35.7	34.2	-	-	-	-	50.8	-	-	-	-	-	-
	(16)	(16)	(15)	(15)	(14)	(15)	(16)	(14)	(15)	(14)	(15)	(16)	
Mean	38.3	35.7	35.8	39.3	46.6	55.9	60.1	62.2	60.4	54.0	47.9	42.7	48.2

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

PROVINCETOWN, MASSACHUSETTS 42°03'N. 70°11'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1882	-	-	-	43.3	47.5	-	70.4	71.5	62.5	56.2	47.9	38.4	-
83	33.8	32.6	33.0	40.8	53.0	66.2	68.1	67.1	62.1	54.1	47.9	39.6	49.9
84	33.6	34.9	35.4	-	-	-	-	-	-	-	-	-	-
	(2)	(2)	(2)	(2)	(2)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	
Mean	33.7	33.8	34.2	42.0	50.2	66.2	69.2	69.3	62.3	55.2	47.9	39.0	50.2

Foot of Railroad Wharf, Provincetown Harbor.

One reading per day at 2 p.m., Washington Time

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

RACE POINT, CAPE COD BAY, PROVINCETOWN, MASSACHUSETTS 42° 03.5'N. 70° 15'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	64.0	61.6	57.2	46.0	31.7	-
79	-	-	45.2	45.9	55.2	52.5	-	-	-	-	-	-	-
1880	-	-	-	47.3	56.0	66.0	62.6	65.8	59.1	56.2	47.5	40.8	-
1881	34.0	37.1	44.3	46.1	46.4	64.8	-	-	56.1	56.5	44.6	45.2	50.0
82	35.2	39.2	39.1	50.7	50.4	72.9	70.8	67.1	58.3	45.4	43.9	41.9	51.2
83	-	37.9	33.2	49.2	57.0	71.7	71.0	64.8	56.1	54.9	42.2	39.3	51.2
84	36.3	39.8	44.3	41.1	55.2	69.9	70.4	67.8	71.7	44.6	41.6	33.2	51.3
1885	42.4	36.7	46.4	45.0	61.8	70.9	72.8	69.6	59.3	58.6	53.0	52.1	55.7
1886	-	-	-	-	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-
1890	37.2	37.8	38.0	44.8	51.2	57.9	67.9	67.9	64.1	56.5	49.1	40.5	51.1
1891	35.3	35.8	35.4	41.3	50.2	59.8	64.0	63.3	63.4	56.4	47.2	42.0	49.5
92	37.4	36.4	37.4	40.0	47.4	57.2	68.9	65.8	61.9	57.6	46.5	39.5	49.7
93	35.3	34.4	36.4	42.3	49.1	55.5	61.8	68.1	62.4	51.9	49.0	43.4	49.1
94	37.6	36.2	37.3	41.4	47.6	55.9	64.2	65.1	58.7	53.7	47.7	40.7	48.8
1895	36.0	33.5	34.0	38.5	46.9	55.4	63.2	67.8	66.5	62.0	53.2	46.7	50.3
1896	39.8	35.6	37.4	38.9	46.0	61.1	67.9	68.5	64.6	57.2	50.0	43.6	50.9
97	36.4	35.4	38.2	44.6	50.1	57.0	63.0	64.8	64.5	58.1	50.2	42.8	50.4
98	38.0	36.0	39.5	44.9	48.4	56.8	66.7	67.9	64.1	57.6	48.2	40.7	50.7
99	36.1	34.3	35.3	42.5	52.4	56.1	61.0	65.6	63.3	58.0	51.8	44.6	50.1
1900	38.0	35.3	36.0	41.3	47.7	56.0	68.0	69.7	67.8	59.6	50.9	44.4	51.2
1901	39.2	35.7	35.9	39.5	46.2	55.4	63.4	66.6	64.8	55.4	-	-	-
	(16)	(17)	(18)	(19)	(19)	(19)	(17)	(18)	(19)	(19)	(18)	(18)	
Mean	37.1	36.2	38.5	43.4	50.8	60.1	66.3	66.7	62.5	55.7	47.9	41.8	50.6

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

POLLOCK RIP 41° 32'N. 69° 55'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	55.6	56.9	57.5	55.8	47.4	41.3	-
79	35.8	-	35.4	-	-	-	53.0	56.9	58.1	55.0	47.2	42.5	-
1880	40.0	36.3	35.9	38.4	50.0	59.8	57.3	58.8	(57.4)	(53.5)	46.5	39.8	48.1
1881	34.9	32.5	35.5	38.1	47.1	57.6	59.6	-	-	-	-		(47.1)
82	38.1	36.7	35.8	36.8	41.5	49.1	56.1	54.7	54.7	53.9	45.3	38.4	45.1
83	34.9	34.2	33.7	38.6	45.7	52.4	52.9	57.2	56.6	50.8	46.6	40.5	45.4
84	37.3	38.1	36.7	40.6	46.6	52.8	56.4	56.4	58.5	53.9	47.8	44.4	47.5
1885	39.9	33.8	34.4	39.2	44.8	50.9	58.2	60.9	58.3	54.8	49.4	44.6	47.5
1886	37.2	34.6	35.2	42.3	47.4	52.6	57.7	57.6	58.3	53.7	49.4	43.8	47.5
87	39.2	37.3	35.4	38.3	45.6	53.3	57.2	57.7	58.4	54.0	47.3	43.3	47.3
88	36.5	34.1	34.1	37.8	43.7	49.9	56.4	58.3	55.1	51.7	48.0	41.2	45.6
89	39.8	35.3	36.8	39.8	46.0	51.2	55.3	55.5	58.1	51.9	48.2	44.2	46.8
1890	41.3	39.2	37.9	40.7	45.0	52.8	59.1	58.3	55.8	54.5	47.8	42.0	47.9
1891	38.2	37.2	36.9	40.6	45.6	51.3	55.7	55.0	59.1	53.7	47.5	43.7	47.0
92	39.6	35.4	35.4	41.3	46.3	53.7	55.7	59.4	59.0	52.9	46.5	41.6	47.2
93	35.5	34.6	35.0	37.7	43.2	49.5	58.0	59.1	55.2	52.8	47.5	42.7	45.9
94	37.9	36.0	37.1	39.1	44.5	49.8	52.9	56.2	54.0	50.0	46.2	40.8	45.4
1895	37.8	33.9	34.8	38.9	46.1	54.0	55.8	-	57.5	53.0	47.3	43.4	(46.7)
1896	-	-	-	38.9	47.4	53.0	58.1	60.5	58.3	54.5	50.4	45.1	(48.0)
97	40.1	37.6	38.2	41.4	47.7	54.3	56.2	60.0	59.9	54.5	49.2	43.9	48.6
98	41.0	-	40.4	-	46.5	55.1	-	-	-	54.4	49.9	40.2	(47.8)
99	39.0	35.8	37.0	40.5	47.6	52.4	56.2	57.6	58.1	53.9	48.9	44.9	47.7
1900	38.7	37.1	35.8	39.8	46.5	52.8	-	-	-	-	-	-	-
	(21)	(19)	(21)	(20)	(21)	(21)	(21)	(19)	(20)	(21)	(21)	(22)	
Mean	38.2	35.8	36.1	39.4	45.9	52.8	56.4	57.7	57.4	53.5	47.8	42.6	47.0

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly And Annual Mean Surface Water Temperatures, °F

POLLOCK RIP LIGHTSHIP 41°32'N. 69°55'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	44.6	51.8	56.6	60.4	57.2	50.8	45.5	40.5	-
1926	37.0	34.4	34.4	37.4	44.4	50.2	55.8	59.1	56.1	53.7	48.4	42.8	46.1
27	38.2	37.3	37.3	39.5	43.7	50.7	57.3	57.1	58.5	52.8	48.8	43.7	47.1
28	40.6	38.2	37.4	40.2	44.2	52.0	55.9	63.0	59.3	54.8	49.6	45.6	48.4
29	41.2	38.6	-	40.2	44.7	54.0	57.8	57.2	57.1	53.0	49.2	43.1	(47.7)
1930	40.2	37.5	36.8	39.5	45.2	52.5	59.5	58.4	60.5	56.1	50.2	45.4	48.5
1931	41.1	38.2	38.4	41.4	45.1	53.7	58.4	61.4	60.0	56.2	51.0	46.0	49.2
32	-	40.5	-	41.0	46.1	52.3	58.4	58.6	57.9	52.0	48.3	43.2	(47.8)
33	41.0	39.2	35.8	35.8	42.1	50.9	55.9	54.8	54.4	54.3	47.3	42.4	46.2
34	38.3	33.4	34.0	36.8	42.5	52.1	58.0	53.1	53.5	50.5	47.9	42.6	45.2
1935	36.8	34.9	35.1	37.7	43.9	50.6	58.2	61.7	56.4	51.0	45.7	39.8	46.0
1936	37.5	-	36.2	38.7	44.8	52.1	59.8	57.8	55.9	51.3	47.0	41.5	46.3
37	39.8	37.6	36.1	39.7	45.4	53.3	62.4	60.8	52.0	47.6	42.8	44.0	46.8
38	38.8	37.9	37.5	40.2	45.9	50.5	55.6	58.7	56.5	52.9	47.5	40.9	46.9
39	38.5	37.7	36.8	39.4	44.9	54.0	56.5	57.7	59.4	54.4	47.4	41.9	47.4
1940	36.4	34.3	34.6	36.7	42.9	52.4	57.8	59.3	58.3	-	47.9	42.8	(46.4)
1941	39.5	36.9	34.6	38.6	43.9	50.6	55.7	57.4	56.3	50.7	46.7	43.4	46.2
	(15)	(15)	(14)	(16)	(17)	(17)	(17)	(17)	(17)	(16)	(17)	(17)	
Mean	39.0	37.1	36.1	38.9	44.4	52.0	57.6	58.6	57.0	52.6	47.7	42.9	47.0

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

POLLOCK RIP LIGHTSHIP 41° 32'N. 69° 55'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1948	45.2	44.2	43.8	-	-	-	53.8	57.1	-	53.5	50.8	42.8	-
49	37.9	38.5	39.2	41.4	-	-	59.4	64.2	56.4	51.6	49.9	40.6	-
1950	39.9	39.8	38.2	39.3	-	-	54.8	58.6	58.2	55.3	51.5	46.0	-
1951	43.3	41.9	41.0	42.8	-	-	-	65.1	64.9	56.9	51.7	46.4	-
52	42.7	40.6	39.5	42.1	46.6	-	-	61.2	56.5	56.0	51.0	46.0	-
53	42.4	40.3	39.5	41.3	45.2	-	-	63.2	61.4	56.6	52.4	49.0	-
54	44.3	39.9	39.8	41.2	-	53.4	59.5	64.4	60.6	55.2	52.2	46.8	-
1955	42.7	40.1	40.0	-	-	50.0	58.4	67.8	61.1	54.9	50.2	44.3	-
1956	40.1	38.9	38.3	39.4	-	-	-	-	-	-	-	-	-
	(9)	(9)	(9)	(7)	(2)	(2)	(5)	(8)	(7)	(8)	(8)	(8)	
Mean	42.1	40.5	39.9	41.1	45.9	51.7	57.2	62.7	59.9	55.0	51.2	45.2	49.3

Readings at 0130, 0730, 1330 and 1930 EST

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

GREAT ROUND SHOAL LIGHTSHIP 41°24.3'N. 69°54.7'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1891	-	-	-	-	-	-	-	-	60.4	54.3	46.4	43.2	-
92	39.7	36.3	34.9 *	39.9 *	45.1	53.8	59.6	61.6	60.2	54.5	45.8	39.5	47.6
93	33.6	33.4	35.1	39.0	45.2	51.8	60.8	61.3	57.9	54.0	48.8	41.6	46.9
94	38.9	35.8	38.1	39.7	46.9	53.8	59.3	61.1	58.3	53.2	46.9	40.2	47.7
1895	36.8	33.8*	35.8	40.2	46.3	54.7	59.9	60.3	59.3	-	-	41.4	(47.5)
1896	37.5	36.0*	36.4	40.0	47.0	53.0	59.4	60.6	58.0	52.4	49.1	43.0	47.7
97	38.5	36.7	38.1	41.8	49.5	54.4	58.0	62.5	60.4	55.4	47.3*	42.7	48.8
98	38.5	37.2	38.8	40.0*	45.5	53.3	58.9	62.2	59.0	54.7	-	-	(48.2)
99	37.2	34.2	35.8	39.0	46.9	55.3	56.3	60.2	60.2	52.8	48.9	43.6	47.5
1900	38.8*	36.6	36.1	40.4	47.4	54.8	59.8	61.2	-	-	50.3	47.4	(48.8)
1901	44.6	35.3	35.8	38.6	45.2	54.8	60.0	60.9	-	-	45.4	39.4	(47.8)
02	37.9	39.2	40.8	43.0	48.8	51.8	58.1	59.8	60.2	55.3	50.3	43.1	49.0
03	37.7	35.9	39.0 *	41.7 *	46.8	50.5	58.4	-	-	-	-	-	-
	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(11)	(10)	(9)	(10)	(11)	
Mean	38.3	35.9	37.0	40.3	46.7	53.5	59.0	61.1	59.4	54.1	47.9	42.3	48.0

* Values less than 28° omitted.

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

NANTUCKET, MASSACHUSETTS 41°17'N. 70°06'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1886	-	-	-	-	-	-	-	-	-	-	49.0	37.7	-
87	33.4	35.4	36.4	43.8	57.4	64.5	74.0	72.4	64.6	56.4	45.9	38.0	51.8
88	30.5	31.5	35.2	45.1	54.2	64.8	68.6	71.6	65.4	52.4	46.9	38.7	50.4
89	38.5	32.6	38.4	46.9	60.0	67.7	73.7	72.9	68.8	56.1	49.2	42.5	53.9
1890	40.1	38.0	-	-	-	-	-	-	-	-	-	-	-
	(4)	(4)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)	
Mean	35.6	34.4	36.7	45.3	57.2	65.7	72.1	72.3	66.3	55.0	47.8	39.2	52.3

Wharf, foot of Main Street.

Readings at 2 p.m. EST

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

CROSS RIP LIGHTSHIP 41°26.7'N. 70°17.4'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	69.6	69.9	68.0	60.0	48.0	39.4	-
79	31.5	30.8	33.8	39.8	51.9	61.9	67.7	68.7	65.6	60.5	48.3	42.0	50.2
1880	37.8	36.2	37.3	42.0	53.0	63.1	70.2	-	66.4	59.3	48.7	36.4	(51.6)
1881	31.4	30.9	36.1	39.9	51.2	-	-	-	-	-	-	-	-
82	34.0	33.6	34.2	37.4	-	-	-	69.0	67.4	60.6	49.8	38.3	(50.5)
83	32.5	31.5	32.0	38.6	51.1	62.2	69.4	69.4	65.0	56.3	47.7	38.9	49.6
84	32.3	34.0	34.5	39.2	49.3	59.0	66.1	68.1	66.1	58.8	48.2	40.6	49.7
1885	35.4	29.3	31.8	39.2	48.7	61.7	69.4	70.9	64.0	56.2	50.2	40.7	49.8
1886	33.6	32.5	32.8	42.8	52.5	61.2	67.6	68.3	67.2	58.9	50.2	40.0	50.6
87	33.4	33.5	34.4	39.1	52.1	60.8	69.2	70.6	64.9	56.8	47.3	40.5	50.2
88	30.5	29.8	32.9	40.5	49.5	60.0	-	68.2	65.3	55.0	-	-	(48.9)
89	38.1	33.8	35.3	42.4	55.0	62.8	68.5	69.8	66.9	56.2	50.0	43.9	51.9
1890	39.4	36.7	36.4	42.8	53.4	61.6	68.4	70.9	67.9	59.0	49.5	38.6	52.0
1891	33.6	35.2	36.3	44.0	51.7	61.0	66.3	68.7	-	59.5	48.9	43.4	(51.5)
92	38.5	33.3	33.7	40.6	49.0	60.4	66.6	71.2	66.6	57.9	48.4	38.0	50.4
93	31.9	30.8	32.7	-	-	-	-	-	-	-	-	-	-
	(15)	(15)	(15)	(14)	(13)	(12)	(12)	(13)	(13)	(14)	(13)	(13)	
Mean	34.3	32.8	34.3	40.6	51.4	61.3	68.2	69.5	66.2	58.2	48.9	40.0	50.5

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

NANTUCKET NEW SOUTH SHOALS LIGHTSHIP — 40°56'N. 69°52'W. — 1884 Moved to 40 55 69 49

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	59.7	59.7	56.4	47.7	42.7	-
79	36.8	36.1	36.6	38.7	45.1	51.8	56.2	-	-	-	-	-	-
1880	-	-	-	-	-	-	-	-	-	-	-	-	-
1881	-	34.6	38.3	38.3	44.0	50.3	57.6	59.0	58.9	56.3	49.8	43.7	(47.5)
82	38.5	36.6	37.6	39.5	42.7	49.8	-	-	-	-	49.3	41.4	(47.3)
83	37.5	36.2	35.1	38.8	45.6	55.0	60.4	61.2	60.3	55.0	49.4	42.5	48.1
84	37.2	38.3	36.7	38.5	44.1	52.0	57.3	58.6	60.4	-	49.3	43.9	(47.7)
1885	40.0	34.3	34.4	38.8	43.4	52.0	58.3	60.4	59.9	55.9	51.2	43.4	47.7
1886	40.1	38.0	36.7	41.5	45.9	52.0	58.0	59.6	60.9	57.0	51.0	43.8	48.7
87	38.8	38.1	37.1	39.0	45.0	51.4	58.3	59.5	59.6	56.4	48.6	44.1	48.0
88	-	35.5	36.4	38.2	-	-	55.6	58.5	58.0	52.6	49.1	42.4	(46.8)
89	40.7	37.1	38.3	40.4	44.1	52.6	57.5	58.9	59.6	54.6	-	44.4	(48.1)
1890	41.6	39.2	38.6	40.9	46.0	51.8	-	60.7	60.3	55.0	48.6	41.3	(48.5)
1891	38.7	38.0	37.3	41.0	46.0	51.1	57.6	60.0	58.6	55.6	48.5	44.0	48.0
92	-	37.1	-	40.2	45.7	-	-	-	-	-	-	-	-
	(10)	(13)	(12)	(13)	(12)	(11)	(10)	(11)	(11)	(10)	(11)	(12)	
Mean	39.0	36.8	36.9	39.5	44.8	51.8	57.7	59.6	59.6	55.5	49.3	43.1	47.8

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

NANTUCKET SHOALS LIGHTSHIP 40°46'N. 69°56'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1892	-	-	-	-	-	-	-	-	-	-	-	42.1	-
93	34.3	34.1	35.2	-	-	-	56.7	60.8	58.6	55.8	-	-	-
94	39.5	37.5	38.3	40.1	45.7	50.7	56.3	60.3	61.2	56.7	49.5	-	-
1895	-	-	-	39.9	45.7	52.4	56.1	61.4	60.0	56.8	51.8	44.9	-
1896	40.1	37.0	34.4	39.8	46.2	51.8	56.4	60.2	59.2	-	-	-	-
	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)	(4)	(3)	(2)	(2)	
Mean	38.0	36.2	36.0	39.9	45.9	51.6	56.4	60.7	59.8	56.4	50.6	43.5	47.9

Readings at First high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

NANTUCKET SHOALS LIGHTSHIP 40°37'N. 69°37'06"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1896	-	-	-	-	-	-	-	-	-	-	52.8	-	-
97	41.3	-	39.3	41.9	45.3	50.0	65.4	63.1	61.5	56.5	51.6	47.8	(50.3)
98	41.2	39.9	40.3	40.7	44.7	47.7	55.6	60.6	-	-	51.1	42.4	(48.4)
99	38.1	-	37.0	-	44.9	56.8	62.1	65.5	-	-	51.7	46.7	(49.8)
1900	-	39.6	38.9	40.8	44.8	51.3	57.9	64.7	61.6	-	-	-	(49.4)
1901	39.6	35.8	37.0	40.0	41.8	50.1	55.5	64.3	64.0	-	-	43.7	(48.3)
02	39.5	36.9	39.6	41.4	45.8	48.7	56.4	60.4	59.6	-	-	44.5	(48.4)
03	38.0	36.2	37.8	42.4	46.6	51.7	54.2	58.0	62.8	57.4	51.6	-	(48.4)
04	-	35.2	-	39.2	44.8	48.0	-	63.3	61.6	-	48.5	40.2	(47.7)
1905	-	-	35.7	38.8	-	53.6	55.6	-	56.3	52.2	48.4	-	(47.0)
1906	-	-	-	37.8	42.8	51.8	57.1	66.8	61.6	58.3	-	-	(48.8)
07	41.6	38.2	37.6	40.2	42.5	49.2	-	-	-	-	50.8	42.7	(48.3)
08	39.3	36.4	38.4	40.5	46.3	55.2	-	-	60.7	61.8	50.9	-	(49.4)
09	39.9	36.7	-	37.8	42.0	48.7	54.6	59.0	56.2	54.4	49.1	42.1	(46.3)
1910	-	37.2	37.3	-	44.1	49.2	59.2	67.3	62.4	-	-	-	(48.9)
1911	-	39.8	37.9	40.1	47.4	53.3	58.2	59.8	57.0	55.6	52.2	45.0	(48.8)
12	38.2	35.4	36.1	39.4	43.7	51.8	57.1	-	-	-	-	42.5	(47.8)
	(10)	(12)	(13)	(14)	(15)	(16)	(13)	(12)	(12)	(7)	(11)	(10)	
Mean	39.7	37.3	37.9	40.1	44.5	51.1	57.6	62.7	60.4	56.6	50.8	43.8	48.5

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatues, °F

NANTUCKET SHOALS LIGHTSHIP 40° 37'N. 69° 37' 06"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1923	-	-	-	-	-	-	-	-	-	-	50.5	47.8	-
24	41.5	38.3	38.1	40.3	43.3	49.8	55.4	59.6	58.5	56.6	51.4	44.2	48.1
1925	40.5	39.4	39.2	42.8	46.6	51.5	-	-	60.3	53.8	50.9	44.4	(49.2)
1926	-	35.7	35.3	37.6	-	-	-	-	59.1	54.8	51.9	44.3	(48.0)
27	40.4	37.3	38.6	39.7	42.8	47.7	57.1	58.7	56.4	54.9	51.6	46.4	47.6
28	39.6	36.5	35.5	37.8	42.7	49.1	57.3	61.5	57.6	54.9	49.8	45.0	47.3
29	39.5	38.5	37.3	38.9	43.3	52.2	-	58.5	59.2	53.4	49.0	43.8	(47.6)
1930	39.5	36.8	35.9	38.8	43.8	53.3	58.8	61.2	62.6	53.9	51.3	46.0	48.5
1931	42.0	40.0	41.5	43.6	46.1	52.7	60.0	64.2	60.7	56.4	53.7	47.6	50.7
32	43.8	40.2	38.6	41.0	-	53.9	59.8	68.1	63.8	58.5	52.8	47.6	(51.0)
33	-	-	-	-	47.3	54.2	56.6	61.3	62.7	57.7	51.1	43.6	(49.4)
34	39.7	34.4	35.7	39.8	-	53.4	59.7	63.1	67.1	56.8	52.1	46.2	(49.4)
1935	40.0	38.4	38.4	40.6	44.6	52.2	58.6	63.5	61.7	55.7	52.6	44.9	49.3
1936	39.9	36.4	39.2	42.3	48.0	52.8	57.2	61.7	59.0	56.5	51.4	46.5	49.2
37	45.0	41.9	39.0	40.3	45.7	50.6	57.7	68.6	64.2	57.5	54.2	45.9	50.9
38	42.4	41.0	39.4	42.4	44.1	53.4	60.8	65.7	63.1	56.7	55.6	48.7	51.1
39	43.5	42.6	41.4	42.5	46.2	51.5	60.5	66.0	61.2	56.2	51.2	45.1	50.6
1940	39.1	37.9	-	37.1	43.2	48.9	54.5	62.1	58.6	55.0	50.7	45.4	47.5
1941	40.8	36.8	36.4	39.7	44.6	50.4	56.5	60.1	59.1	53.5	51.5	47.1	48.0
	(16)	(17)	(16)	(17)	(15)	(17)	(15)	(16)	(18)	(18)	(19)	(19)	
Mean	41.1	38.4	38.0	40.3	44.6	51.6	57.7	62.7	60.8	55.7	51.8	45.8	49.0

Readings at 8 a.m. and 8 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

NANTUCKET LIGHTSHIP 40°37'N. 69°38'18"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	-	-	-	-	60.3	52.9	-	-
48	-	40.7	40.0	42.5	46.1	50.8	56.4	63.4	61.0	56.6	-	-	(50.3)
49	-	41.4	40.2	-	46.7	60.3	67.6	68.6	65.6	61.1	-	51.0	(53.6)
1950	-	-	-	43.7	47.2	57.0	60.8	63.4	-	-	-	-	-
1951	43.3	42.8	42.8	44.8	47.7	52.8	61.2	65.6	65.9	59.4	55.0	48.0	52.4
52	-	-	-	44.4	45.5	53.2	61.1	67.8	63.0	59.0	53.0	48.0	(51.7)
	(1)	(3)	(3)	(4)	(5)	(5)	(5)	(5)	(4)	(5)	(3)	(3)	
Mean	43.3	41.6	41.0	43.8	46.6	54.8	61.4	65.8	63.9	59.3	53.6	49.0	52.0

Readings at 0130, 0700, 1330 and 1930, EST

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

NANTUCKET LIGHTSHIP 40°37'00"N. 69°18'30"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1953	-	-	-	43.9	46.7	52.4	58.8	57.6	59.3	54.4	51.4	-	-
54	-	-	38.4	43.8	47.8	-	-	60.0	-	-	-	-	-
1955	42.0	42.2	42.4	41.7	-	-	-	-	-	-	-	-	-
	(1)	(1)	(2)	(3)	(2)	(1)	(1)	(2)	(1)	(1)	(1)		
Mean	42.0	42.2	40.4	43.1	47.2	52.4	58.8	58.8	59.3	54.4	51.4	-	-

Readings at 0130, 0730, 1330 and 1930, EST

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

WOODS HOLE, MASSACHUSETTS 41° 31'N. 70° 40'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1880	37.6	35.3	37.9	43.7	57.8	66.5	72.5	71.6	68.5	57.9	46.0	-	-
1881	-	30.9	36.6	41.0	53.8	-	-	-	-	59.0	50.5	-	-
82	34.5	33.1	37.5	43.3	49.8	61.6	-	-	-	-	48.0	-	-
83	30.7	31.2	32.3	41.5	52.5	64.9	71.3	69.9	65.1	55.9	47.7	37.1	50.0
84	32.4	34.5	35.3	42.8	55.1	-	-	-	-	-	45.8	41.5	-
1885	34.6	29.8	31.8	40.3	50.1	61.3	71.4	71.8	65.8	58.6	51.4	39.7	50.6
1886	32.2	30.9	32.2	42.6	55.7	62.5	68.7	69.1	68.1	60.3	51.0	38.0	50.9
87	32.6	33.2	34.6	40.0	52.6	62.0	70.6	72.0	66.5	58.9	48.2	40.3	51.0
88	31.1	30.4	33.1	41.0	50.2	62.7	66.6	68.9	64.3	54.3	48.6	39.1	49.2
89	36.6	32.2	34.7	42.7	55.7	65.4	68.7	70.7	67.2	57.0	49.8	44.4	52.1
1890	40.2	36.4	36.4	-	53.3	62.0	69.4	71.1	68.0	59.0	48.0	36.7	(52.0)
1891	33.1	34.8	35.7	44.3	52.3	61.1	66.9	68.6	69.1	57.6	47.4	42.0	51.1
92	36.8	31.9	33.3	42.5	51.1	62.1	69.9	71.8	67.1	58.8	50.6	37.3	51.1
93	29.6	29.8	30.7	40.9	51.0	61.2	69.6	73.3	67.5	60.4	52.4	40.8	50.6
94	35.0	32.7	37.6	42.7	53.6	62.0	70.4	69.4	67.2	59.6	48.1	39.2	51.5
1895	34.0	29.6	-	42.0	53.4	63.4	-	69.9	67.6	59.5	49.5	39.7	51.1
1896	32.9	31.7	32.4	40.7	53.3	63.4	65.7	70.9	66.7	58.3	53.1	41.2	50.9
97	32.0	31.6	35.4	43.0	49.7	60.0	69.6	70.3	67.6	59.4	49.9	41.9	50.9
98	36.1	34.0	39.0	43.7	49.7	60.5	68.1	70.8	68.2	59.6	49.9	37.1	51.4
99	33.4	30.8	34.5	41.6	51.9	63.2	69.6	69.4	66.0	57.8	49.4	41.8	50.8
1900	34.6	31.2	33.8	40.9	52.6	61.7	68.6	70.9	68.8	60.1	50.7	39.8	51.1
1901	33.2	29.6	33.4	41.2	51.9	61.2	69.6	69.9	68.7	62.2	47.8	36.8	50.5
02	31.5	29.0	36.2	45.7	54.0	62.0	66.3	69.1	67.3	60.6	52.0	38.8	51.0
03	32.6	32.0	39.1	45.7	54.5	61.0	67.6	68.0	66.6	57.3	47.8	36.5	50.7
04	29.3	29.0	33.1	40.8	53.3	62.2	69.4	65.8	67.0	57.7	46.5	34.4	49.0
1905	30.7	29.0	32.6	42.4	52.0	61.5	70.3	69.9	66.3	59.4	48.1	39.8	50.2
1906	33.0	34.4	35.0	42.2	53.2	62.8	68.9	70.9	68.1	60.0	48.4	36.2	51.1
07	-	-	-	-	-	-	-	-	-	-	-	-	-
08	35.7	30.4	35.9	41.3	52.4	61.9	71.0	69.3	62.7	57.2	46.6	40.2	50.4
09	-	-	-	-	-	-	-	-	-	-	-	-	-
1910	31.5	32.0	37.8	46.9	55.2	62.6	70.4	71.0	66.9	60.4	48.0	36.6	51.6

1880 - May 1884, incl., 1893-1897, incl, one reading per day at no specified time.
Nov. 1884 - 1892, incl., 1898-1919, incl., readings at first high water and first low water after 7 a.m.

Source - USCFF

WOODS HOLE, MASS. (Continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1911	34.6	31.3	33.7	41.3	52.9	62.5	71.0	71.1	66.3	57.8	49.0	41.5	51.1
12	31.6	30.1	34.0	42.3	51.8	65.0	69.4	69.5	66.9	60.1	51.5	41.5	51.1
13	39.2	34.1	38.1	45.5	52.9	62.0	69.6	71.6	66.8	60.2	51.2	42.6	52.8
14	33.9	31.1	32.0	42.0	51.8	62.4	66.4	68.6	67.2	60.5	49.1	39.1	50.3
1915	34.4	35.0	36.0	41.8	52.8	60.3	68.0	69.4	67.0	55.3	48.1	38.0	50.5
1916	32.8	31.7	31.0	39.9	49.8	59.0	67.0	68.3	65.7	59.9	50.4	40.1	49.6
17	34.1	30.6	34.6	41.1	48.4	59.7	68.0	71.3	66.6	57.9	47.0	34.8	49.5
18	29.9	30.6	33.0	41.1	54.3	62.3	68.2	71.0	66.7	58.8	51.9	41.3	50.8
19	36.4	34.8	38.7	-	-	-	-	-	-	-	-	-	-
1920	-	-	-	-	-	-	-	-	-	-	-	-	-
1921	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	-	-	-	-	-	-	-	-	-	-
1926	-	-	-	-	-	-	-	-	-	-	-	-	-
27	32.0	32.6	35.6	42.7	51.0	59.1	66.0	67.8	64.3	59.3	51.4	41.3	50.3
28	35.0	31.3	33.9	42.2	49.9	60.4	67.9	69.8	66.5	58.8	49.2	40.9	50.5
29	34.9	32.3	35.7	43.1	52.0	62.1	68.2	68.0	65.4	54.5	49.2	35.9	50.1
1930	-	-	-	-	-	-	-	-	-	-	-	-	-
1931	-	-	-	-	-	-	-	-	-	-	-	-	-
32	39.4	35.8	-	43.5	53.1	62.1	69.1	72.2	67.6	60.5	50.5	41.0	(52.5)
33	39.3	35.7	36.0	43.2	53.9	63.2	67.3	70.2	67.7	60.6	47.3	37.8	51.8
34	32.7	29.8	32.5	42.9	52.8	62.4	69.9	69.9	67.8	58.4	47.9	38.9	50.5
1935	30.8	28.6	33.6	39.9	49.8	59.6	67.3	68.3	63.5	56.3	50.1	36.2	48.7
1936	31.2	29.5	37.5	45.2	55.1	63.0	68.2	70.6	67.2	60.5	49.4	39.7	51.4
37	39.8	37.4	37.7	43.4	52.9	62.5	68.2	72.1	66.5	56.6	49.1	40.7	52.2
38	35.9	35.9	37.7	45.0	51.9	60.5	66.9	70.1	64.5	57.2	50.9	39.6	51.3
39	33.3	31.4	34.1	40.6	48.9	59.8	66.0	70.6	65.2	57.4	44.8	36.8	49.1
1940	29.6	29.9	33.4	40.3	51.1	59.1	65.7	67.9	66.4	56.9	47.9	39.2	49.0
1941	33.6	30.5	32.3	41.9	52.5	61.1	68.2	69.6	67.0	60.2	51.2	41.8	50.8
42	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	35.4	42.1	59.2	63.1	70.0	71.8	68.2	59.2	48.0	38.1	(51.8)
1945	32.4	30.6	37.9	48.0	54.5	62.4	70.7	70.7	68.5	59.0	50.5	37.6	51.9
1946	32.9	31.9	39.0	45.3	53.1	61.9	68.4	68.5	66.2	61.2	53.6	42.8	52.1
47	35.8	34.0	36.1	43.5	50.7	61.2	71.8	72.5	69.6	61.0	49.5	38.8	52.0
48	31.1	30.2	35.8	44.6	52.3	60.6	69.5	71.3	68.0	58.3	53.1	43.8	51.6
49	38.6	36.7	-	48.5	55.4	65.4	71.7	72.5	67.9	61.5	52.0	41.9	(54.0)
1950	39.6	36.2	34.0	42.3	50.2	62.0	69.7	71.0	66.3	59.5	53.0	43.0	52.2

1927-1941, readings at 8 a.m., 12 m. and 4 p.m. Source - USBF

WOODS HOLE, MASS. (Continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1951	37.0	34.9	38.4	46.7	56.0	63.0	70.6	71.7	70.2	61.4	50.4	41.3	53.5
52	36.1	35.0	36.4	45.2	54.0	65.0	71.9	73.0	68.3	59.4	49.6	42.1	53.0
53	37.1	36.5	38.7	45.6	53.7	63.5	70.1	70.1	69.0	60.3	52.6	46.0	53.6
54	35.8	34.4	38.5	45.4	52.6	63.6	69.8	69.8	65.1	61.5	51.4	40.8	52.1
1955	35.5	32.4	37.3	43.3	53.1	62.2	71.9	73.2	67.6	60.4	50.6	36.8	52.0
1956	32.3	33.8	35.3	41.6	49.8	60.9	68.0	70.1	66.5	58.6	51.7	43.8	51.0
	(62)	(63)	(61)	(62)	(63)	(61)	(58)	(60)	(60)	(61)	(63)	(60)	
Mean	34.1	32.3	35.3	42.9	52.6	62.0	69.0	70.3	67.0	58.9	49.5	39.7	51.1

1944-1956, one reading per day, usually near noon.

Source - USC&GS

Monthly and Annual Mean Surface Water Temperatures, °F

VINEYARD SOUND LIGHTSHIP 41° 23'02"N. 70° 59'01"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	63.6	65.2	64.6	59.8	50.5	42.8	-
79	35.5	33.2	34.4	39.5	-	57.6	63.4	64.8	63.3	60.1	49.2	43.6	(49.4)
1880	-	-	-	-	-	-	65.9	-	64.5	60.1	49.5	38.9	-
1881	32.2	31.0	34.9	37.9	48.1	56.0	62.7	65.1	63.8	60.0	52.8	-	(48.9)
82	-	-	36.7	40.6	47.5	55.9	63.4	66.5	63.7	58.8	50.2	40.5	(49.4)
83	33.2	32.0	32.6	38.6	47.4	60.3	66.4	65.4	62.0	54.2	-	-	(48.7)
84	30.6	34.5	34.0	39.4	47.5	55.2	60.6	63.9	63.2	57.6	49.5	42.2	48.2
1885	36.4	31.2	31.7	37.6	47.2	56.0	64.6	66.4	60.4	56.0	51.2	41.8	48.4
1886	34.6	30.3	33.2	41.0	50.2	56.8	62.4	63.4	61.8	59.7	51.6	42.2	48.9
87	35.6	35.5	35.3	39.1	48.7	57.2	65.6	66.7	63.6	58.9	50.5	44.3	50.1
88	35.9	32.5	33.0	39.0	47.3	55.4	61.1	63.8	62.4	55.0	50.2	42.2	48.2
89	40.1	35.8	36.3	40.8	49.9	57.3	62.8	65.5	63.8	56.5	51.7	45.0	50.4
1890	41.5	38.8	37.8	42.6	50.1	58.1	63.3	65.2	63.9	58.0	49.5	39.6	50.7
1891	34.4	35.1	36.0	42.4	49.9	56.6	61.2	65.5	64.9	58.4	49.2	43.7	49.8
92	39.3	33.7	33.4	39.3	47.4	57.2	63.3	66.7	64.3	57.2	50.1	40.9	49.4
93	31.9	31.0	31.6	38.1	46.3	57.3	61.9	65.4	62.5	57.8	51.8	42.3	48.2
94	37.5	33.3	35.3	38.9	48.5	56.2	63.1	64.2	62.9	58.7	50.5	42.2	49.3
1895	36.1	31.2	32.7	38.3	46.9	57.0	61.9	64.2	62.4	55.8	49.2	40.9	48.0
1896	34.7	32.0	32.3	37.2	47.6	56.0	61.5	-	-	54.8	50.2	41.1	(48.0)
97	-	30.4	32.7	38.6	47.1	54.5	62.8	64.3	61.5	56.3	49.6	42.3	(48.0)
98	-	32.3	35.3	39.7	45.7	53.3	61.3	65.2	63.6	58.8	52.1	41.7	(48.8)
99	37.3	33.1	35.1	40.3	48.0	58.3	-	-	63.4	58.6	52.4	-	(49.7)
1900	-	35.6	34.4	40.1	48.4	56.2	63.7	66.5	65.8	60.9	53.8	44.6	(50.5)
1901	38.2	35.5	33.9	40.4	-	55.2	63.0	65.2	64.1	59.2	50.0	41.1	49.5
02	35.2	33.1	36.0	42.7	50.5	56.6	61.5	63.9	63.5	59.3	53.0	42.7	49.8
03	36.5	34.7	38.1	-	52.9	56.2	61.8	62.7	61.5	59.0	51.6	42.9	49.8
04	33.7	30.9	31.9	37.6	48.7	57.0	63.7	64.6	61.6	57.6	49.4	38.8	48.0
1905	33.8	30.3	33.2	38.9	47.5	56.8	63.0	64.3	61.6	57.3	50.0	40.4	48.1
1906	38.5	-	-	41.8	48.0	57.0	64.7	64.0	62.0	58.9	48.9	39.8	(49.3)
07	36.1	30.1	32.2	37.0	42.7	51.0	59.9	63.2	61.4	55.6	48.9	42.1	46.7
08	38.6	33.9	-	-	-	57.8	64.6	66.2	61.9	58.8	-	-	(49.7)
09	37.3	35.5	36.7	41.5	49.7	56.2	61.8	65.0	62.4	58.2	50.8	39.9	49.6
1910	36.0	34.2	36.2	43.6	51.5	58.3	63.3	65.9	-	-	-	-	-
	(27)	(29)	(29)	(29)	(28)	(31)	(32)	(30)	(31)	(32)	(30)	(28)	
Mean	36.0	33.1	34.4	39.7	48.2	56.5	62.9	65.0	63.0	58.0	50.6	41.8	49.1

Sow & Pigs Reef

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

NEWPORT, RHODE ISLAND 41°29'N. 71°19'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1881	-	-	-	-	52.1	60.4	67.7	68.3	66.7	60.3	51.4	43.9	-
82	37.2	36.5	39.9	-	49.2	-	68.3	70.4	66.0	59.9	49.4	38.4	-
83	33.8	33.8	35.6	-	-	-	-	-	-	-	-	-	-
	(2)	(2)	(2)	(0)	(2)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	
Mean	35.5	35.2	37.8	-	50.6	60.4	68.0	69.4	66.4	60.1	50.4	41.2	-

South side of Commercial Wharf, inner harbor.

Readings at 2 p.m. Washington time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BRENTON'S REEF 41°25.6'N. 71°22.6'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	66.1	66.5	66.2	60.4	50.6	43.1	-
79	36.3	34.4	35.1	40.0	51.0	59.0	66.5	67.3	64.9	61.7	50.3	43.9	50.9
1880	40.5	39.0	40.9	43.4	52.1	62.0	68.2	68.0	65.7	60.5	51.7	41.5	52.8
1881	34.5	33.6	35.9	39.9	50.1	58.0	65.3	66.3	65.7	61.1	53.9	46.3	50.9
82	40.5	38.1	39.3	42.0	47.8	57.6	64.6	68.3	65.9	60.5	52.1	42.0	51.6
83	36.2	34.2	35.8	41.1	49.4	61.0	67.1	66.6	63.7	57.2	50.7	42.7	50.5
84	35.5	35.3	35.7	40.6	49.3	57.2	61.5	65.3	64.5	58.7	49.9	43.5	49.8
1885	39.0	34.3	34.7	39.7	49.2	57.7	66.6	68.5	63.2	58.6	52.8	43.9	50.7
1886	36.6	33.9	-	42.2	51.4	59.1	64.1	64.9	65.4	59.8	52.7	42.9	(50.8)
87	35.1	35.1	36.4	40.1	50.7	59.5	67.6	68.1	63.7	59.1	50.9	44.3	50.9
88	37.5	34.1	34.0	38.6	48.4	58.7	63.1	65.0	63.1	54.9	50.1	43.8	49.3
89	41.0	37.9	37.7	41.7	52.8	60.2	65.9	66.9	65.7	57.4	51.5	46.0	52.1
1890	43.6	40.7	38.9	42.5	51.2	57.8	65.1	66.6	65.6	-	51.5	42.5	(52.0)
1891	37.4	37.8	38.2	43.1	48.9	59.0	64.3	67.3	66.3	58.5	49.7	44.9	51.3
92	39.9	36.5	35.1	42.0	49.4	59.0	65.8	67.8	65.1	57.5	49.7	41.5	50.8
93	33.6	-	35.2	40.7	49.9	60.4	64.5	68.1	64.1	59.0	51.3	42.4	(50.8)
94	39.4	-	38.9	42.2	51.6	58.4	65.8	66.3	64.8	59.5	50.6	-	(51.1)
1895	36.7	-	36.3	41.8	50.1	61.9	65.7	67.3	64.8	57.1	50.9	43.3	(50.9)
1896	38.2	36.3	35.9	41.4	49.9	60.0	64.7	67.5	63.7	57.2	52.6	42.3	50.8
97	37.6	35.7	37.7	42.6	50.8	58.0	66.8	68.0	65.0	58.8	52.6	45.4	51.6
98	40.6	36.2	38.2	41.8	49.3	57.5	65.3	67.4	64.5	58.2	49.3	41.2	50.8
99	37.1	33.6	35.5	41.9	49.4	60.3	65.5	67.7	64.8	57.8	51.9	45.0	50.9
1900	38.2	35.8	35.5	40.9	48.8	58.3	63.4	67.2	65.7	59.6	51.6	42.7	50.6
1901	36.7	31.3	33.8	38.7	47.8	55.4	63.3	64.9	61.4	53.9	44.1	36.5	47.3
02	32.6	30.5	32.6	38.2	46.5	52.8	58.0	62.4	64.1	59.7	52.4	42.2	47.7
03	37.7	35.9	39.7	44.2	52.7	57.5	61.8	63.6	63.4	54.5	45.8	40.4	49.8
04	34.7	31.9	33.3	38.8	51.3	59.0	65.5	66.2	64.2	57.6	48.9	39.7	49.3
1905	35.4	32.4	34.7	40.2	47.5	58.2	64.8	66.0	62.0	56.7	47.1	40.5	48.8
1906	36.4	34.6	34.5	43.1	50.4	59.2	64.5	66.6	63.8	59.1	52.0	42.2	50.5
07	36.8	33.4	43.3	38.0	45.0	53.7	62.9	64.1	61.8	55.7	50.1	43.8	48.3
08	40.8	35.3	36.8	41.6	49.9	60.4	66.5	67.3	63.8	60.6	52.9	45.1	51.8
09	38.1	36.8	37.8	42.8	50.5	58.4	63.7	66.5	64.0	59.5	51.5	42.1	51.0
1910	35.6	34.2	36.0	44.3	52.4	58.4	66.0	67.2	65.4	60.6	52.0	41.3	51.1
1911	37.3	34.9	35.8	39.9	48.1	59.2	66.4	67.5	64.8	58.6	52.5	45.9	50.9
12	37.4	34.8	35.6	40.1	49.2	58.0	64.3	65.9	64.1	59.2	53.6	46.0	50.7
13	42.5	39.8	39.0	44.2	51.0	59.1	65.1	67.5	64.4	60.4	53.7	46.8	52.8
14	38.7	34.7	34.7	47.3	49.5	57.6	63.1	65.4	63.3	59.1	51.9	42.7	50.7
1915	37.2	36.0	37.7	42.6	50.1	58.6	64.5	66.4	65.1	57.5	52.1	43.4	50.9

Through 12 May, 1925 readings made at 1st high water and first low water.
From 13 May, 1925, " " " 8 a.m. and 6 pm.

Brenton's Reef, Continued

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1916	38.3	36.0	33.9	37.8	46.2	56.5	62.5	64.8	62.4	57.2	51.2	42.7	49.1
17	37.6	33.7	34.5	39.1	44.2	55.2	62.4	66.6	61.6	55.7	48.7	39.1	48.2
18	30.7	29.7	32.3	38.3	48.8	57.3	62.7	65.5	63.3	56.0	51.7	43.6	48.3
19	39.1	38.1	37.5	40.8	46.5	54.0	58.6	61.1	59.7	59.6	51.1	43.6	49.1
1920	36.1	31.0	33.8	39.4	46.8	56.3	61.7	65.7	62.6	56.4	47.9	41.4	48.2
1921	36.8	37.2	39.6	46.1	52.2	57.6	62.3	63.2	61.9	56.4	51.0	43.1	50.6
22	38.0	34.7	34.9	41.0	49.0	59.6	66.5	65.7	65.6	58.8	49.9	41.6	50.4
23	35.5	33.6	33.3	38.7	47.2	56.2	64.2	63.4	62.5	55.4	49.2	44.8	48.7
24	38.8	34.7	34.8	39.3	47.2	53.8	59.1	63.3	63.6	59.0	52.0	43.7	49.1
1925	37.4	35.7	38.5	42.9	49.8	58.8	64.6	64.9	63.7	57.0	49.2	43.0	50.4
1926	38.0	34.3	35.1	39.2	47.1	54.5	62.4	65.2	63.0	58.6	51.8	43.1	49.4
27	38.3	37.1	36.9	41.5	49.4	58.4	64.4	65.8	63.2	60.3	55.2	47.8	51.5
28	42.8	38.7	38.7	42.2	48.8	57.4	61.8	64.7	64.4	58.9	52.3	45.5	51.4
29	39.4	36.5	38.3	43.2	47.9	59.4	63.6	66.2	66.3	59.6	54.3	45.1	51.6
1930	41.5	39.4	41.4	46.0	53.4	60.5	66.9	67.9	67.5	61.3	53.1	46.6	53.8
1931	40.7	37.6	38.5	44.9	52.9	61.7	68.3	69.5	66.8	61.7	54.8	48.6	53.8
32	44.3	42.7	41.7	44.6	52.2	59.8	65.9	69.7	65.2	61.0	54.7	57.6	54.1
33	43.7	40.6	40.2	43.5	50.2	60.8	65.2	68.3	66.1	60.6	51.9	44.3	53.0
34	39.3	35.3	36.0	42.2	48.7	59.8	67.1	67.7	67.7	61.2	54.0	46.2	52.1
1935	40.0	37.0	38.7	43.1	50.0	59.9	67.7	68.9	65.3	60.8	55.7	46.0	52.8
1936	38.5	33.3	-	-	-	-	65.3	67.6	65.6	60.5	52.5	43.6	(51.1)
37	42.7	40.0	39.5	43.3	51.3	61.7	66.7	69.4	-	57.4	52.7	45.6	(52.9)
38	39.7	38.3	38.7	43.5	51.5	60.1	-	-	64.3	59.2	53.7	45.0	(52.1)
39	39.0	36.4	37.4	42.2	48.7	-	-	70.9	65.0	60.4	50.9	43.7	(51.5)
1940	36.6	34.3	34.2	39.7	49.2	57.9	63.9	66.5	61.6	55.2	48.6	41.7	49.1
1941	36.2	32.6	33.6	40.3	47.9	56.3	64.3	64.8	61.7	57.0	49.7	41.2	48.8
42	32.5	-	-	-	50.4	61.5	65.2	66.2	64.6	59.7	-	39.6	(50.4)
43	37.5	-	-	-	-	-	-	-	-	-	-	-	-
Mean 1878	(64)	(60)	(61)	(62)	(63)	(62)	(63)	(64)	(64)	(64)	(64)	(64)	
1943	38.1	35.6	36.5	41.6	49.5	58.4	64.6	66.5	64.3	58.6	51.4	43.5	50.7

Source - USCFF, USBF, USFWS

Monthly And Annual Mean Surface Water Temperatures, °F

NEW LONDON, CONNECTICUT — 41° 21'12"N. 72° 05'31"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	68.4	-	-	-	-	-
74	-	-	-	42.5	56.4	65.5	-	70.4	67.3	59.0	50.4	40.7	-
1875	34.6	32.6	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	39.1	46.4	55.2	66.4	70.4	74.0	68.5	59.3	49.0	42.1	(53.4)
78	35.6	35.8	42.1	50.1	58.0	65.2	72.4	71.6	69.3	61.1	49.3	40.0	54.2
79	34.3	33.9	38.3	45.6	-	66.0	71.3	70.3	67.0	62.6	49.4	42.2	(53.1)
1880	39.5	38.2	41.2	48.0	59.8	67.4	73.1	71.7	68.1	60.9	49.1	39.0	54.7
1881	34.3	33.6	39.0	42.2	56.9	64.5	72.5	72.2	69.1	60.7	51.7	44.4	53.4
82	38.4	35.9	-	46.2	53.8	-	71.2	72.2	68.5	60.6	50.4	39.3	(53.4)
83	35.1	35.0	37.4	47.1	55.0	68.3	70.8	70.6	66.5	58.4	51.2	41.3	53.0
84	35.0	36.0	38.7	46.6	56.8	68.1	70.2	71.9	-	60.3	49.6	-	(52.7)
1885	36.8	33.2	35.6	47.0	54.9	64.4	70.8	71.4	65.6	-	-	-	(52.6)
1886	34.9	33.4	36.9	49.9	55.9	63.4	70.6	70.5	68.6	60.0	51.2	38.8	52.8
87	-	35.1	37.1	45.2	59.8	66.2	74.9	72.9	66.1	59.1	48.8	43.2	(53.7)
	(10)	(11)	(10)	(12)	(11)	(11)	(11)	(13)	(11)	(11)	(11)	(10)	
Mean	35.8	34.8	38.5	46.4	56.6	65.9	71.6	71.4	67.7	60.2	50.0	41.1	53.3

Custom House Wharf, 150 feet from shore.
March '77 " " 300 " " "

Readings at 2 p.m. 75th meridian time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BARTLETTS REEF 41°16.3'N. 72°07.8'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	65.8	66.4	61.7	49.7	42.0	-
79	33.4	32.1	33.4	36.9	46.1	54.5	-	-	-	-	-	-	-
1880	-	-	-	-	48.8	58.1	65.1	66.5	65.8	60.8	52.4	41.7	(50.6)
1881	33.7	30.5	33.5	37.5	46.4	54.9	62.2	65.1	64.8	60.5	53.0	45.3	49.0
82	38.4	35.3	37.1	39.9	45.7	54.6	61.8	65.8	65.0	59.8	51.1	40.2	49.6
83	34.0	31.8	32.5	38.2	46.3	55.8	64.1	65.0	63.3	57.8	50.5	41.4	48.4
84	33.8	33.5	34.0	39.2	46.8	55.8	62.0	64.7	65.6	59.8	50.5	43.0	49.0
1885	36.9	31.8	31.7	37.6	45.1	55.9	63.2	67.8	65.5	60.0	54.0	44.7	49.5
1886	37.3	34.3	34.8	41.1	49.0	56.9	63.0	65.3	66.2	61.5	53.7	43.7	50.6
87	36.4	35.5	36.1	39.8	48.1	56.8	65.0	68.2	65.2	60.5	52.0	45.2	50.7
88	37.7	33.4	33.7	38.0	45.4	55.5	61.5	64.5	63.4	57.2	51.4	43.9	48.8
89	41.3	38.0	38.5	41.6	49.2	57.6	64.0	65.9	65.8	58.3	52.6	46.8	51.6
1890	43.8	40.6	39.3	43.2	50.0	57.4	64.4	66.6	65.3	59.8	51.6	42.7	52.0
1891	37.0	37.0	37.9	42.4	47.9	55.9	62.3	66.2	66.2	60.5	51.5	45.7	50.9
92	40.7	37.0	35.5	40.3	47.3	56.4	63.1	67.0	66.2	59.0	51.2	42.9	50.6
93	33.7	31.9	33.6	39.0	46.2	55.2	63.2	65.3	64.5	60.2	53.1	44.1	49.2
94	39.7	36.3	37.5	41.2	48.7	56.7	63.5	66.3	65.4	61.0	52.5	44.6	51.1
1895	38.4	32.5	34.5	40.2	47.4	57.2	63.8	66.4	65.7	59.4	52.3	44.4	50.2
1896	38.4	35.8	35.2	40.4	48.5	56.9	63.5	67.2	65.1	-	53.4	45.4	(50.8)
97	38.4	34.6	36.4	42.0	48.2	56.0	64.4	68.2	66.1	60.7	53.6	45.8	51.2
98	40.1	-	38.8	-	47.8	56.7	62.7	-	-	60.7	52.6	-	(50.8)
99	37.4	-	-	40.6	48.3	57.0	62.6	66.4	66.3	60.0	53.5	46.5	(50.7)
1900	39.4	36.1	35.6	41.0	47.4	56.5	63.3	67.0	67.2	62.7	54.7	45.9	51.4
1901	39.6	34.0	34.4	39.8	48.1	56.2	63.8	66.0	66.9	60.8	51.0	41.3	50.2
02	37.0	34.4	36.7	41.3	48.6	55.2	61.0	65.2	65.1	61.5	54.2	44.3	50.4
03	37.8	35.5	38.9	43.5	49.0	53.8	59.3	61.9	61.4	57.3	50.4	40.2	49.1
04	33.0	31.2	31.4	36.2	44.1	52.8	59.2	62.3	61.3	55.1	47.8	38.6	46.1
1905	33.6	29.4	31.6	37.4	43.3	51.1	59.0	62.0	61.1	56.2	48.0	41.7	46.2
1906	-	35.6*	-	-	-	-	-	-	-	-	-	-	-
Mean 1878 1906	(26) 37.3	(25) 34.3	(25) 35.3	(25) 39.9	(27) 47.3	(27) 55.8	(26) 62.7	(26) 65.7	(26) 65.0	(26) 59.7	(27) 51.9	(26) 43.5	49.9

N.B. Data up to June, 1903, looks unusually good in the original.
From June, 1903, on the readings appear to be consistently too low, possibly because of broken mercury column.

* Incomplete obs.

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

NEW HAVEN, CONNECTICUT 41°18'N. 72°54'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1881	-	-	-	-	58.9	62.9	71.3	73.4	70.1	60.0	48.6	40.0	-
82	33.7	34.3	-	-	53.2	-	73.1	74.2	68.5	60.0	46.3	34.4	-
83	31.0	31.6	35.0	45.4	57.7	68.9	73.8	72.3	65.8	55.5	-	35.8	-
84	31.1	33.0	35.5	-	56.3	-	-	72.4	-	58.9	45.8	37.5	-
1885	33.8	30.5	32.9	45.0	54.0	64.9	74.9	74.5	67.2	59.6	48.4	36.4	51.8
1886	32.5	32.6	35.8	49.4	56.8	65.3	71.0	-	-	-	-	-	-
	(5)	(5)	(4)	(3)	(6)	(4)	(5)	(5)	(4)	(5)	(4)	(5)	
Mean	32.4	32.4	34.8	46.6	56.2	65.5	72.8	73.4	67.9	58.8	47.3	36.8	

Harbor frozen over 22 Feb. to 8 March, 1883.

Wharf near mouth of Quinnipiac River in harbor.

Readings at 2 p.m., Washington time

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

STRATFORD SHOAL LIGHTHOUSE 41° 04'N. 73° 06'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	71.3	70.8	64.8	53.0	-	-
79	-	-	34.9	-	-	60.8	-	-	-	-	-	-	-
1880	-	-	-	-	-	63.0	68.3	70.0	68.9	-	53.8	40.6	-
1881	33.2	31.0	34.8	38.3	48.6	58.4	65.1	68.4	68.4	66.6	56.4	46.6	51.3
82	38.4	34.6	36.7	40.8	47.3	58.4	65.7	68.6	69.0	64.0	53.9	41.6	51.6
83	34.3	32.0	32.9	39.7	49.5	59.4	67.6	69.2	68.2	61.2	52.3	43.0	50.8
84	34.4	32.7	33.4	40.1	49.1	58.3	64.3	68.7	69.6	64.3	53.3	43.6	51.0
1885	36.6	30.9	31.4	37.0	46.7	55.8	66.4	70.4	68.2	63.4	54.5	42.7	50.3
1886	35.1	31.8	32.4	41.0	-	-	64.6	69.2	69.2	63.7	54.2	40.9	(50.8)
87	33.6	32.7	32.8	37.5	49.4	58.1	67.9	72.3	67.4	61.0	50.3	43.0	50.5
88	34.5	30.5	31.1	37.2	46.2	57.0	63.2	68.3	67.2	59.0	51.6	42.6	49.0
89	38.2	34.4	35.2	40.4	49.8	59.7	67.3	70.4	69.2	60.0	52.6	45.6	51.9
1890	41.8	38.4	36.9	41.6	50.1	59.0	65.5	68.9	68.9	63.8	53.4	42.6	52.6
1891	34.5	34.5	35.5	41.0	48.5	57.7	64.0	69.1	70.0	64.2	52.5	45.5	51.4
92	39.3	34.7	34.1	38.7	47.2	57.9	65.9	70.7	69.7	62.9	52.7	42.2	51.3
93	32.3	30.1	31.9	38.0	46.8	56.6	65.0	69.3	68.4	62.3	53.8	43.5	49.8
	(13)	(13)	(14)	(13)	(12)	(14)	(14)	(15)	(15)	(14)	(15)	(14)	
Mean	35.9	32.9	33.8	39.3	48.3	58.6	65.8	69.6	68.9	62.9	53.2	43.1	51.0

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BLOCK ISLAND, S.E. LIGHT 41°09'N 71°33'W

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	67.0	-	58.9	-	-	-
79	-	-	-	-	-	57.6	65.8	-	66.5	-	-	-	-
1880	42.0	-	-	-	55.8	63.5	68.2	68.2	65.6	59.1	46.1	38.8	-
1881	32.4	31.9	35.3	40.0	-	57.0	64.6	64.8	63.9	60.6	49.6	-	(49.2)
82	38.8	37.4	39.2	41.8	46.3	58.1	66.1	69.3	66.3	58.8	47.7	39.1	50.7
83	-	-	-	37.4	45.6	56.6	-	64.4	62.0	54.4	-	42.4	(48.8)
84	-	-	37.0	43.3	51.2	60.2	63.1	64.8	63.6	57.3	49.5	41.4	50.3
1885	38.2	-	-	40.7	47.0	57.2	66.7	69.6	63.8	58.8	51.6	40.6	(50.6)
1886	36.5	34.6	37.5	43.1	46.3	59.4	67.0	66.3	64.8	59.4	53.2	42.6	50.9
87	35.1	36.5	37.7	45.6	55.3	59.6	68.2	69.6	63.8	57.5	50.7	42.9	51.9
88	-	-	-	40.4	48.8	60.1	65.7	66.8	63.0	53.9	48.4	41.3	(49.8)
89	41.1	38.4	40.7	44.5	56.7	60.3	66.4	68.7	65.5	55.9	49.4	43.8	52.6
1890	40.7	40.9	39.9	47.2	51.0	62.3	68.0	67.3	65.4	57.5	47.4	38.0	52.1
1891	36.7	36.9	39.0	44.1	50.8	61.8	64.0	67.7	65.8	57.9	46.8	42.6	51.2
92	38.5	36.1	36.5	43.7	51.0	60.2	67.1	69.3	65.8	56.2	46.7	37.9	50.8
93	-	-	36.0	42.0	47.9	59.7	67.0	66.8	62.3	55.6	48.4	40.8	(49.9)
94	38.0	-	39.8	42.7	54.2	61.5	66.0	65.9	63.6	60.4	49.0	41.4	(51.5)
1895	36.1	-	39.0	43.1	53.0	62.5	67.1	68.7	62.5	52.5	46.6	39.1	(50.4)
1896	33.1	-	33.5	41.8	50.8	57.8	64.9	66.5	61.9	53.9	47.8	39.6	(48.9)
97	-	33.2	36.4	43.2	47.9	59.4	65.8	67.6	62.2	54.4	48.7	39.2	(49.6)
98	-	-	-	40.8	45.8	-	-	67.4	64.3	54.9	-	37.1	-
99	-	-	-	-	-	60.1	63.9	65.2	62.1	55.0	-	48.4	-
1900	36.5	34.7	35.9	43.9	48.6	56.9	64.2	67.9	66.4	57.8	46.5	39.1	49.9
1901	35.3	-	33.7	38.2	49.2	53.9	62.1	63.9	62.9	55.8	41.4	39.7	(47.8)
02	-	33.6	38.4	44.4	51.6	58.2	63.3	66.9	65.6	59.5	53.1	42.2	(51.2)
03	36.6	36.9	43.0	46.0	55.6	56.9	65.3	64.6	63.0	58.8	49.4	36.9	51.1
04	-	-	34.1	40.4	50.4	60.2	65.1	68.6	64.2	57.7	46.1	35.2	(49.5)
1905	33.5	30.5	35.1	42.0	47.5	57.2	65.7	66.9	65.6	56.6	47.4	41.8	49.2
1906	-	-	-	44.6	52.1	58.4	63.3	68.3	65.9	59.8	48.3	40.4	-
07	-	-	-	-	-	-	-	63.4	62.6	54.9	48.3	39.2	-
08	36.8	31.3	34.9	40.4	47.9	58.2	65.6	64.8	63.0	58.7	47.9	-	(49.2)
Mean													
1878	(18)	(14)	(21)	(26)	(27)	(28)	(27)	(30)	(30)	(30)	(26)	(27)	
1908	37.0	35.2	37.3	42.5	50.2	59.1	65.6	66.9	64.1	57.1	48.3	40.4	50.3

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BLOCK ISLAND 41°10.4'N 71°33.4'W

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1881	-	-	-	-	49.8	58.4	65.6	67.2	65.6	58.0	50.1	44.6	-
82	37.8	36.4	-	-	48.2	-	64.2	67.4	65.5	59.1	49.7	39.6	-
83	34.0	34.2	35.4	42.1	50.8	59.1	-	66.5	63.6	55.8	49.7	40.9	(49.7)
84	34.4	36.8	37.2	-	50.6	59.2	64.6	66.8	-	57.8	48.6	41.5	(50.4)
1885	-	-	33.9	41.6	49.4	57.5	66.2	68.3	63.2	57.7	50.9	41.1	(50.0)
1886	35.4	32.6	35.0	42.5	51.1	59.0	64.7	66.2	66.0	59.0	50.0	40.7	50.2
Mean	(4)	(4)	(4)	(3)	(6)	(5)	(5)	(6)	(5)	(6)	(6)	(6)	
	35.4	35.0	35.4	42.1	50.0	58.6	65.1	67.1	64.8	57.9	49.8	41.4	50.3

Government Wharf - Main Road

Readings at 2 p.m., Washington time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FIRE ISLAND LIGHTHOUSE, N.Y. 40°37'57"N. 75°13'09"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	70.8	71.9	69.6	61.4	47.2	38.2	-
79	31.4	31.5	39.9	45.7	61.0	66.6	-	-	-	-	-	-	-
1880	-	-	-	-	-	-	71.7	70.8	67.3	59.0	46.5	35.1	-
1881	31.1	33.9	39.0	44.5	56.4	62.3	70.0	69.0	69.2	61.0	53.1	43.0	52.7
82	36.7	35.9	40.8	44.9	52.6	63.7	70.3	72.6	69.4	60.8	48.4	36.4	52.7
83	34.5	36.1	37.4	44.1	53.4	66.4	71.0	69.7	65.2	58.3	48.6	38.7	52.0
84	33.2	37.3	40.8	46.3	55.7	64.9	67.5	70.4	68.3	60.6	47.9	39.5	52.7
1885	36.0	-	-	45.5	53.4	61.5	70.8	72.8	65.6	57.9	46.3	37.8	-
1886	34.1	33.3	37.4	-	-	-	-	-	-	-	-	-	-
87	-	35.1	37.2	45.8	59.4	64.2	69.7	72.5	65.0	57.2	-	-	-
	(7)	(7)	(7)	(7)	(7)	(7)	(8)	(8)	(8)	(8)	(7)	(7)	
Mean	33.8	34.7	38.9	45.2	56.0	64.2	70.2	71.2	67.4	59.5	48.3	38.4	52.3

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FIRE ISLAND LIGHTSHIP 40°29'N. 73°11'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	60.7	66.8	67.0	64.9	55.2	46.7	41.6	-
1926	35.8	31.3	33.3	39.1	49.6	58.3	68.3	69.0	65.4	60.7	52.5	42.6	50.5
27	36.2	35.8	37.7	40.4	49.4	58.8	66.4	68.2	67.4	63.2	54.3	47.3	52.1
28	41.8	38.6	39.6	43.5	50.5	60.5	63.9	70.5	67.6	61.9	54.3	46.9	53.3
29	41.5	37.4	39.7	43.9	50.4	62.4	-	69.2	65.6	59.6	54.3	44.8	(53.1)
1930	39.8	36.6	38.3	43.0	51.5	60.2	67.4	67.5	68.2	59.3	53.4	44.0	52.4
1931	36.8	34.2	35.5	40.5	48.0	58.6	67.1	68.3	67.9	62.6	52.5	46.4	51.5
32	41.7	40.5	37.4	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	54.1	62.8	68.4	71.2	68.7	62.3	52.5	44.9	-
34	39.1	-	33.6	41.7	51.2	-	72.2	70.0	68.3	63.1	54.3	46.4	(53.0)
1935	41.1	34.9	37.6	42.6	51.5	61.3	71.9	72.0	66.4	59.5	56.3	46.3	52.6
1936	38.4	32.6	37.1	42.7	52.7	62.7	70.8	71.6	67.6	62.5	53.4	45.2	53.1
37	43.0	39.8	39.4	40.5	52.4	63.2	70.7	72.8	67.7	60.2	52.6	45.7	54.0
38	-	38.9	38.9	45.6	52.4	62.0	69.8	71.8	65.1	60.4	56.4	46.9	(54.0)
39	41.9	38.8	40.2	43.5	50.9	64.8	70.1	74.7	69.5	63.8	53.2	46.6	54.8
1940	37.4	34.6	35.8	39.3	49.2	58.8	-	-	-	-	-	-	-
	(13)	(13)	(14)	(13)	(14)	(14)	(13)	(13)	(13)	(13)	(13)	(13)	
Mean	39.6	36.5	37.4	42.0	51.0	61.1	68.8	70.3	67.2	61.0	53.3	45.4	52.8

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

NEW YORK CITY · 40°43'N. 74°01'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	69.0	59.4	44.8	38.6	-
74	36.2	33.2	36.0	40.3	53.0	67.0	72.9	73.2	70.9	60.2	-	38.5	(52.6)
1875	32.0	-	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	34.3	41.9	53.6	62.8	70.6	73.6	67.7	59.3	47.5	39.5	(51.5)
78	33.7	35.4	40.3	50.2	58.8	64.6	-	73.4	71.8	62.2	48.8	39.8	(54.3)
79	32.1	33.9	36.3	41.8	57.9	66.7	72.4	73.6	68.0	63.2	47.9	40.7	52.9
1880	37.3	-	-	44.8	58.2	69.2	73.8	72.8	69.7	60.3	48.2	35.5	(53.2)
1881	30.0	31.0	35.6	42.8	-	65.3	71.7	73.2	72.4	63.9	52.1	-	(52.7)
82	-	34.4	-	-	52.2	65.0	72.0	73.7	70.3	61.7	49.7	37.1	(52.4)
83	32.2	32.5	36.0	44.0	-	67.0	74.0	71.6	67.2	-	48.6	39.3	(52.4)
84	32.4	33.6	-	-	56.5	-	-	73.0	-	62.0	-	-	-
1885	-	31.7	33.8	-	54.4	65.1	72.1	76.5	68.6	-	-	39.8	(52.4)
1886	34.1	32.5	35.5	46.6	57.1	64.3	72.6	73.6	72.2	64.7	50.8	38.0	53.5
87	32.3	34.6	35.7	41.6	-	68.1	74.7	75.3	67.6	58.9	47.3	40.2	(52.7)
88	32.8	32.4	33.6	41.7	54.0	-	-	73.2	67.8	55.8	49.2	38.0	(51.4)
89	-	32.2	36.6	-	57.7	64.7	69.7	70.4	68.2	54.3	50.2	42.4	(52.0)
1890	40.3	-	-	-	-	-	-	-	-	-	-	-	-
	(12)	(12)	(11)	(10)	(11)	(12)	(11)	(14)	(14)	(13)	(12)	(13)	
Mean	33.8	33.1	35.8	43.6	55.8	65.8	72.4	73.4	69.4	60.4	48.8	39.0	52.6

North River, Pier 13 & 14.

1873-Oct. 1879 incl., readings at 3 p.m. local time.
Nov. 1879-June 1881 incl., " " 1 p.m. " "
July 1881-Nov. 1881 incl., " " 2 p.m. " "
Feb. 1892-Oct. 1884 incl., " " 2:12 p.m." "
Feb. 1885-1890, incl., " " 2 p.m. 75th meridian time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

SANDY HOOK LIGHTSHIP 40°26'12"N. 73°51'42"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	68.4	71.2	69.5	61.7	51.2	42.4	-
79	-	-	-	-	-	-	-	-	-	-	-	-	-
1880	-	-	-	-	56.0	67.4	72.1	71.7	70.0	61.8	51.0	41.5	-
1881	34.1	33.8	36.1	42.2	55.6	62.4	70.1	70.0	70.5	63.3	55.1	47.1	53.4
82	42.6	39.5	40.1	44.2	50.8	60.6	69.2	72.1	69.9	63.2	53.8	43.0	54.1
83	36.2	35.8	37.3	43.9	55.0	64.9	71.6	66.8	65.8	58.6	50.7	41.8	52.4
84	35.7	34.9	36.3	42.6	52.9	60.8	66.0	68.9	68.3	60.2	48.7	41.9	51.4
1885	36.1	35.8	35.8	39.8	48.5	56.5	68.6	71.0	65.0	55.7	49.9	42.2	50.4
1886	36.7	35.1	36.9	43.9	52.3	61.5	69.1	71.4	69.9	63.5	54.4	42.9	53.1
87	38.2	39.1	39.6	43.2	56.0	65.7	71.4	73.9	68.2	60.7	52.8	45.5	54.5
88	40.8	36.2	36.2	42.5	51.8	62.6	67.7	71.5	66.6	57.2	51.9	43.9	52.4
89	42.2	39.0	39.6	44.7	57.0	63.0	69.2	69.4	69.2	59.3	53.2	47.3	54.4
1890	45.8	43.1	42.0	46.3	54.2	64.6	67.3	68.8	64.9	59.2	50.1	41.0	53.9
1891	36.4	36.6	39.5	44.8	52.8	61.4	66.6	67.0	66.9	62.3	50.7	45.6	52.6
92	40.3	40.6	40.0	45.9	51.7	54.3	-	-	-	-	-	-	-
	(12)	(12)	(12)	(12)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	
Mean	38.8	37.5	38.3	43.7	53.4	62.0	69.0	70.3	68.1	60.5	51.8	43.5	53.1

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

AMBROSE LIGHTSHIP 40°27.1'N. 73°49.4'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1937	-	-	-	-	-	-	-	-	-	-	-	45.8	-
38	41.2	39.9	40.9	45.6	53.7	63.3	69.2	71.1	-	60.1	55.8	47.2	(54.7)
39	43.1	39.4	40.4	43.9	52.2	64.4	69.1	74.9	69.9	62.6	52.0	46.0	54.8
1940	37.2	35.3	36.5	41.2	50.1	60.6	68.1	72.4	67.9	58.1	51.3	45.4	52.0
1941	41.3	38.1	36.6	43.8	52.4	60.9	66.4	69.0	68.0	60.1	52.9	-	(53.0)
42	-	-	-	-	-	-	-	-	-	-	-	-	-
43	-	36.7	37.8	40.5	51.7	64.0	65.3	-	68.5	-	53.9	-	-
44	39.9	-	37.0	-	50.9	62.0	67.2	-	-	-	-	-	-
1945	-	-	-	-	-	-	-	-	-	-	-	-	-
1946	-	-	-	-	-	-	67.7	-	-	-	-	49.8	-
47	-	-	-	-	50.5	59.7	-	-	68.8	62.6	59.4	47.3	-
48	40.8	38.3	34.5	41.7	50.4	63.6	70.3	-	-	-	-	-	-
49	43.3	-	-	-	-	-	-	-	-	-	-	-	-
1950	-	-	-	-	-	-	-	-	-	-	-	-	-
1951	43.2	39.1	-	-	56.2	63.2	67.8	72.9	70.0	63.8	-	-	-
52	-	41.1	39.7	43.2	52.1	60.2	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	53.2	60.8	68.1	-	-	-	53.5	47.7	-
1955	41.7	38.6	39.6	43.6	-	-	69.6	73.2	70.7	64.4	53.9	45.3	-
1956	37.8	36.5	38.1	41.6	49.1	61.2	-	-	-	-	-	-	-
	(10)	(10)	(10)	(9)	(12)	(12)	(11)	(6)	(7)	(7)	(8)	(8)	
Mean	41.0	38.3	38.1	42.8	51.9	62.0	68.1	72.2	69.1	61.7	54.1	46.8	53.8

Readings at 0130, 0730, 1330 and 1930 EST

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

SANDY HOOK, NEW JERSEY 40° 28'N. 74° 01'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1881	-	-	-	-	58.3	66.6	73.8	75.1	71.6	62.1	52.0	45.0	-
82	-	38.8	-	45.5	53.2	-	69.8	72.9	70.0	63.9	52.0	39.0	(53.6)
83	32.9	33.5	37.9	45.0	50.0	64.2	71.6	71.4	67.3	58.4	50.9	40.1	51.9
84	35.2	37.7	37.6	42.6	51.7	-	-	72.0	70.7	61.0	48.9	-	(53.0)
1885	38.8	34.3	36.7	44.7	53.3	63.0	70.7	75.1	71.4	61.4	52.9	41.7	53.7
1886	34.5	33.0	34.6	45.6	59.8	64.4	71.4	73.3	71.7	62.7	-	-	(53.2)
87	-	-	-	48.0	61.0	68.7	77.5	73.9	65.5	56.1	44.1	40.5	(53.4)
88	32.0	32.0	33.1	45.9	55.6	68.7	70.3	72.7	66.2	52.7	48.6	36.0	51.2
89	31.8	32.7	39.2	48.6	62.2	70.0	74.7	72.7	68.7	51.8	44.4	38.8	53.0
1890	36.0	-	39.4	48.9	59.9	68.5	72.1	72.7	67.6	57.0	46.4	34.9	(53.2)
1891	34.0	38.3	38.7	49.6	57.4	68.5	71.1	74.3	70.5	57.4	46.4	40.5	53.9
92	35.2	34.7	36.1	47.3	57.9	69.4	73.6	74.8	69.3	55.6	43.9	34.3	52.7
93	29.8	31.3	35.6	45.3	55.6	68.5	-	-	-	-	-	-	-
	(10)	(10)	(10)	(12)	(13)	(11)	(11)	(12)	(12)	(12)	(11)	(10)	
Mean	34.0	34.6	36.9	46.4	56.6	67.3	72.4	73.4	69.2	58.3	48.2	39.1	53.0

Government Dock
" Jetty
" Pier

Readings at 2 pm., local time

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BARNEGAT LIGHTSHIP 39° 45.8'N. 75° 56.0'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	-	-	-	-	-	56.0	-	-
48	39.6	36.1	-	-	51.5	62.6	69.7	70.5	70.4	61.6	56.4	49.6	(54.6)
49	43.5	42.0	41.6	46.6	55.8	67.1	74.3	75.4	68.7	64.2	56.4	46.8	56.9
1950	44.2	42.2	39.2	44.1	51.6	61.6	70.2	71.4	69.0	62.8	57.7	47.7	55.1
1951	40.8	39.9	40.7	46.6	55.8	65.2	71.2	74.6	71.6	62.5	54.3	46.5	55.8
52	42.6	41.4	41.5	47.2	54.6	64.9	74.0	75.1	70.6	63.1	54.9	47.8	56.5
53	44.0	41.7	42.0	47.6	56.0	62.4	72.6	73.6	71.5	63.2	56.1	48.1	56.6
54	41.9	40.2	41.4	46.9	54.2	63.1	69.1	72.1	69.0	64.7	55.0	46.3	55.3
1955	41.1	38.0	40.4	43.7	54.4	63.4	70.7	-	-	63.8	54.7	42.8	(54.7)
1956	38.3	38.3	38.6	41.9	50.0	62.8	70.7	72.5	-	-	-	-	-
	(9)	(9)	(8)	(8)	(9)	(9)	(9)	(8)	(7)	(8)	(9)	(8)	
Mean	41.8	40.0	40.7	45.6	53.8	63.7	71.4	73.2	70.1	63.2	55.7	47.0	55.5

Readings at 0130, 1730, 1330 and 1930 EST.

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

ABSECON INLET, NEW JERSEY — 39° 21'59"N. 74° 24'52"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	69.7	70.7	-	62.0	49.0	40.6	-
79	33.7	34.8	41.6	46.6	59.9	63.8	68.5	71.9	66.6	65.0	51.0	46.1	54.1
1880	45.2	44.5	47.8	53.7	68.2	75.6	77.2	74.1	73.2	62.2	46.7	34.9	58.6
1881	32.6	33.6	38.5	46.1	58.0	65.0	73.4	73.1	73.4	64.0	54.0	45.4	54.8
82	37.0	36.0	45.3	49.0	53.9	61.8	70.7	72.5	70.8	63.6	52.5	37.5	54.2
83	35.6	36.6	38.8	42.9	54.0	65.8	71.1	66.1	67.6	58.7	47.7	41.0	52.2
84	34.2	38.5	39.8	47.2	57.7	68.6	71.0	74.4	72.4	66.1	51.8	40.1	55.2
1885	33.5	33.1	37.3	48.2	55.6	66.8	73.1	77.9	70.1	57.8	55.5	41.2	54.2
1886	33.1	33.0	38.7	47.9	54.4	65.5	73.2	71.4	71.4	62.0	50.0	38.9	53.3
87	35.1	38.0	38.9	46.4	59.0	67.4	74.1	75.0	67.4	60.0	48.6	41.6	54.3
88	34.4	35.6	36.2	47.2	56.9	65.2	69.9	72.0	67.5	56.0	50.5	39.7	52.6
89	37.6	34.3	39.1	47.6	58.6	64.6	68.2	65.0	69.6	55.2	51.6	44.7	53.0
1890	43.6	43.0	41.7	48.7	57.1	70.3	75.3	74.5	-	60.2	49.8	39.1	(56.2)
1891	37.8	40.3	40.1	47.8	56.6	67.6	71.5	73.8	73.4	60.8	53.6	41.4	55.4
92	37.8	37.4	37.1	45.8	57.0	66.3	72.7	75.2	70.5	60.8	47.2	40.5	54.0
93	32.0	34.3	37.8	49.5	56.0	68.2	70.8	73.2	70.1	60.9	49.2	43.6	53.8
94	39.3	38.0	44.9	46.7	58.2	64.5	66.3	70.4	73.5	62.4	50.6	41.7	54.7
1895	34.4	32.0	39.0	48.1	51.5	68.8	76.1	73.7	71.8	58.9	50.7	41.1	53.8
1896	34.6	37.9	36.0	46.8	56.5	64.8	71.9	74.7	70.3	57.9	54.1	-	(53.9)
	(18)	(18)	(18)	(18)	(18)	(18)	(19)	(19)	(17)	(19)	(19)	(18)	
Mean	36.2	36.7	39.9	47.6	57.2	66.7	71.8	72.6	70.6	60.8	50.7	41.1	54.3

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

ATLANTIC CITY, N.J. 39°21'N. 74°25' W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1881	-	-	-	-	-	63.4	72.8	71.0	73.3	64.2	53.7	44.0	-
82	38.5	39.1	-	-	54.5	-	70.9	72.9	71.1	63.8	52.8	37.9	(54.4)
83	36.1	37.0	39.0	44.8	54.3	66.3	71.3	-	68.0	59.0	47.9	-	(53.3)
84	34.4	38.7	40.2	-	57.8	-	71.5	74.7	72.7	66.2	52.0	41.6	(55.2)
85	34.2	33.1	37.4	48.6	56.3	67.1	74.0	78.9	70.5	58.5	55.0	42.0	54.6
1886	33.2	33.1	39.2	48.2	54.8	65.8	73.5	72.7	71.6	-	-	-	(54.8)
	(5)	(5)	(4)	(3)	(5)	(4)	(6)	(5)	(6)	(5)	(5)	(4)	
Mean	35.3	36.2	39.0	47.2	55.5	65.6	72.3	74.0	71.2	62.3	52.3	41.4	= 54.4

1881 - Wharf, Baltic Ave.; November, 1883, Absecomb Inlet; February 1884, Wharf, Atlantic Ave.; September 1885 - Iron Pier - Mass. Ave.

Readings at 2 p.m., 75th meridian time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FIVE FATHOM BANK (North East End Light) 38°57'45"N. 74°29'34"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1904	-	-	-	-	-	-	-	-	70.6	61.6	53.0	42.3	-
1905	37.6	-	35.4	43.8	54.2	63.6	71.8	72.5	68.8	63.8	54.8	47.0	-
1906	42.1	39.6	39.4	44.2	54.0	63.0	70.4	75.4	71.5	64.4	-	45.1	-
07	-	36.5	37.6	41.9	50.3	58.1	68.1	70.7	67.5	58.2	51.3	45.0	-
08	42.7	37.8	39.6	46.5	54.5	66.1	70.3	72.8	-	-	-	-	-
	(3)	(3)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(3)	(4)	
Mean	40.8	38.0	38.0	44.1	53.2	62.7	70.2	72.8	69.6	62.0	53.0	44.8	54.1

Readings at first high water and first low water after 7 a.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

FIVE FATHOM BANK 38°48'N. 74°36'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	72.5	72.1	-	49.2	45.9	-
79	35.1	35.2	37.3	-	-	63.1	67.2	70.0	69.2	65.6	-	-	-
1880	44.1	-	-	-	-	-	74.4	72.2	71.3	64.3	55.6	44.6	-
1881	-	33.8	39.4	41.6	53.4	64.0	71.0	70.0	73.1	67.1	59.6	50.8	(55.4)
82	44.1	40.2	42.0	45.6	51.6	62.0	70.7	74.6	71.9	65.1	55.5	44.2	55.6
83	37.6	37.6	39.2	42.6	51.8	63.2	70.3	70.0	68.2	63.1	54.4	47.1	53.8
84	38.8	38.4	37.4	42.7	53.6	62.1	67.2	71.1	70.8	64.3	56.3	47.4	54.2
1885	42.7	37.5	35.2	40.1	46.5	61.1	70.4	74.1	68.4	62.6	56.2	46.0	53.4
1886	38.4	36.6	36.9	42.6	51.7	63.6	70.1	71.8	72.0	66.0	57.3	47.1	54.5
87	38.9	38.6	38.8	41.5	53.6	63.2	73.4	75.7	69.2	63.2	53.2	46.5	54.6
88	39.6	35.5	35.2	41.0	51.0	64.8	69.6	72.7	67.4	60.1	53.5	44.7	52.9
89	42.3	40.1	-	43.9	53.8	64.2	75.4	66.8	-	60.0	53.5	48.4	(54.8)
1890	48.0	44.4	41.7	45.5	53.6	-	72.6	71.4	68.4	62.3	53.3	45.0	(55.8)
1891	39.2	39.3	39.8	46.0	-	63.8	70.4	73.3	72.4	64.7	53.1	48.7	(55.3)
92	43.0	36.9	37.2	43.0	51.3	63.9	66.6	74.9	70.6	60.5	51.5	44.1	53.6
93	33.2	33.1	35.8	43.1	51.9	65.3	73.0	-	-	63.5	55.9	47.4	(53.8)
94	43.4	40.2	41.6	45.5	56.3	64.0	70.8	71.2	71.0	64.2	55.3	49.0	56.0
1895	-	34.6	36.2	41.7	50.8	64.6	70.7	74.2	71.9	63.5	54.9	46.7	(54.2)
1896	40.3	38.1	37.0	43.3	54.6	63.3	69.4	73.2	70.6	61.4	55.9	48.7	54.6
97	41.3	36.1	39.2	45.2	54.1	-	72.3	-	-	-	-	-	-
98	42.6	38.6	42.0	45.7	51.9	64.0	71.9	74.1	-	62.5	-	42.0	(55.0)
99	39.0	-	-	42.9	53.7	67.6	68.7	72.9	71.3	63.6	57.0	49.7	(55.2)
	(19)	(19)	(18)	(19)	(18)	(18)	(21)	(20)	(18)	(20)	(19)	(20)	
Mean	40.6	37.6	38.4	43.3	52.5	63.8	70.8	72.3	70.5	63.4	54.8	46.7	54.6

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FIVE FATHOM BANK LIGHTSHIP 38°47'N. 74°34'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	-	72.2	72.2	71.1	61.2	51.8	46.0	-
1926	38.1	35.5	36.2	40.9	51.3	60.4	68.9	73.7	69.2	62.9	55.2	45.1	53.1
27	37.6	37.9	39.8	43.3	-	60.2	67.5	70.7	69.0	64.0	55.5	45.8	(53.7)
28	42.7	39.7	39.8	45.4	51.6	62.3	69.4	73.5	70.6	62.9	55.8	48.0	55.1
29	43.6	37.8	-	46.3	53.8	64.2	69.2	72.4	69.6	-	55.8	47.3	(55.2)
1930	42.5	39.3	41.4	45.9	55.8	64.4	72.1	71.8	71.8	63.8	55.0	47.0	55.9
1931	40.8	38.8	38.9	44.6	52.5	63.0	70.7	73.5	71.4	64.0	56.5	52.1	55.6
32	47.0	44.6	40.8	45.5	-	64.4	70.9	73.4	69.3	64.3	56.5	48.2	(56.5)
33	45.3	41.8	40.7	45.2	56.6	65.7	69.8	74.2	72.9	64.9	53.9	45.9	56.4
34	42.3	35.0	35.0	40.9	-	64.2	73.7	71.1	70.6	63.2	54.6	47.6	(54.3)
1935	41.0	35.6	39.3	43.4	51.6	63.7	71.0	73.6	69.6	60.1	55.6	43.5	54.0
1936	35.3	-	38.3	43.9	56.3	65.3	71.8	73.8	-	64.8	56.5	47.0	55.2
37	44.4	40.5	39.0	43.0	54.2	63.6	72.0	70.6	67.0	59.1	53.0	45.7	54.3
38	41.3	40.4	40.8	44.7	53.4	61.5	69.4	71.7	70.1	60.6	56.5	47.9	54.8
39	42.1	39.2	39.8	44.1	54.2	65.5	67.5	76.1	70.1	65.3	55.0	47.0	55.5
1940	38.5	36.1	37.5	41.6	51.6	63.3	-	-	-	-	-	-	-
	(15)	(14)	(14)	(15)	(12)	(15)	(15)	(15)	(14)	(14)	(15)	(15)	
Mean	41.5	38.7	39.1	43.9	53.6	63.4	70.4	72.5	70.2	62.9	55.1	46.9	54.9

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

FIVE FATHOM BANK LIGHTSHIP 38° 47'N. 74° 34'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	-	-	-	72.9	65.4	57.3	46.6	-
48	40.2	38.2	40.9	44.6	50.9	61.0	70.8	70.8	70.4	62.1	57.6	50.3	54.8
49	43.3	43.2	42.1	46.2	56.1	67.6	74.9	75.9	69.8	64.5	57.4	49.6	57.6
1950	47.8	45.2	41.1	44.0	52.8	63.5	72.4	72.2	70.4	64.7	57.8	48.8	56.7
1951	43.0	39.8	40.8	48.3	57.3	65.1	72.8	73.0	70.5	63.3	56.4	49.0	56.6
52	43.8	40.5	41.0	48.4	54.4	62.1	68.8	74.6	70.9	61.0	56.3	48.8	55.9
53	43.0	41.2	42.4	49.9	59.0	64.0	73.2	73.0	68.8	61.3	55.6	47.2	56.6
54	44.0	41.3	43.0	48.7	56.5	63.9	70.8	72.2	70.0	65.4	55.1	47.7	56.6
1955	41.0	38.4	40.6	45.2	54.4	63.3	73.0	74.2	71.7	64.5	58.7	48.4	56.1
1956	39.3	38.6	39.6	44.0	51.6	64.1	70.0	72.2	70.2	-	-	-	-
	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(10)	(9)	(9)	(9)	
Mean	42.8	40.7	41.3	46.6	54.8	63.8	71.9	73.1	70.6	63.6	56.9	48.5	56.2

Readings at 0130, 0730, 1330 and 1930, EST

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

FOURTEEN FOOT BANK 39°03'N. 75°11'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	74.8	73.2	63.0	51.6	42.9	-
79	-	-	39.0	-	59.3	68.7	72.8	73.7	69.1	65.2	50.0	43.3	-
1880	41.1	40.4	43.1	48.9	61.7	71.0	75.5	74.4	71.8	61.8	49.6	36.8	56.3
1881	-	-	38.9	43.6	59.7	68.2	75.5	75.5	75.7	66.9	56.0	44.5	-
82	38.4	37.8	41.1	-	55.7	67.3	73.2	73.4	71.2	63.6	51.6	37.2	-
83	-	-	36.9	46.4	56.5	68.9	74.5	72.0	67.3	59.2	48.9	40.5	-
84	-	-	37.0	46.7	57.3	61.9	72.8	73.2	71.4	63.2	49.8	40.1	-
1885	-	-	-	-	-	68.3	73.7	77.1	70.8	63.0	52.1	40.1	-
1886	-	-	-	49.6	58.0	66.5	74.2	74.1	73.5	64.7	51.9	59.8	-
87	-	-	-	-	59.8	68.6	77.0	76.3	68.8	60.6	48.9	41.1	-
88	33.0	31.8	34.4	45.5	56.1	68.7	-	75.6	69.0	56.6	52.7	40.2	-
89	39.6	34.8	37.5	47.0	59.2	67.5	72.3	71.0	67.4	55.9	49.4	43.7	53.8
1890	43.2	43.2	41.8	50.5	61.8	72.7	76.1	-	76.2	59.5	50.1	39.7	-
1891	35.1	38.6	39.2	49.1	57.6	68.1	73.1	74.8	72.1	62.1	49.0	42.3	55.1
92	36.8	35.0	-	-	58.2	71.6	72.9	76.0	71.1	60.5	48.1	37.9	-
93	30.5	31.4	36.2	46.8	57.4	67.7	73.9	74.3	70.9	62.2	50.8	40.8	53.6
94	39.0	-	-	48.0	61.3	68.5	73.4	72.3	72.8	62.7	50.8	42.4	-
1895	-	-	-	46.8	-	69.2	73.5	74.2	72.6	60.4	50.2	41.0	-
1896	34.9	35.4	35.9	45.4	60.8	68.8	74.6	74.8	70.2	59.3	52.9	41.8	54.6
97	35.2	32.9	40.4	48.9	59.3	66.2	74.8	75.2	72.0	62.4	52.2	42.2	55.1
98	37.4	35.2	42.6	48.2	56.4	67.8	73.7	77.5	71.8	64.7	51.4	39.1	55.5
99	35.5	31.2	37.4	46.6	59.3	68.5	72.4	44.7	72.4	62.2	53.3	44.0	54.8
1900	35.6	33.7	36.2	45.9	58.9	67.8	75.0	76.7	75.0	65.0	53.9	42.3	55.5
1901	35.2	30.8	35.2	45.1	55.5	66.2	74.7	77.0	73.0	62.4	50.0	38.3	53.6
02	34.0	30.8	39.1	47.0	59.4	66.2	71.9	74.4	70.8	64.2	55.4	42.8	54.7
03	35.6	36.0	44.2	49.9	60.1	66.5	73.5	73.4	71.4	61.9	50.4	37.4	55.0
04	31.1	30.4	-	44.2	54.8	66.1	73.3	73.7	69.7	60.1	48.7	36.7	-
1905	32.4	29.0	36.6	47.0	58.7	68.0	74.6	74.2	70.8	63.0	49.7	40.8	53.7
1906	38.2	35.4	37.2	47.8	57.6	67.6	73.5	75.9	72.2	61.8	49.2	39.2	54.6
07	36.0	30.6	37.2	44.0	54.6	60.9	71.9	72.4	70.8	59.1	48.1	40.2	52.2
08	38.5	33.0	39.7	48.8	59.3	70.3	73.7	73.6	68.0	63.1	51.4	43.4	55.2
09	37.6	38.7	42.0	48.4	59.4	68.3	71.3	-	69.6	59.7	51.0	39.3	-
1910	31.1	33.0	40.1	51.5	58.5	64.0	72.5	71.6	71.5	64.1	49.6	38.0	53.8
1911	37.9	39.8	42.1	49.4	62.2	72.3	76.4	75.8	73.0	63.9	53.0	47.1	57.7
12	37.7	34.8	41.9	52.7	62.5	70.0	75.7	75.2	73.0	64.5	55.8	46.2	57.5
	(26)	(25)	(27)	(29)	(32)	(34)	(33)	(33)	(35)	(35)	(35)	(35)	
Mean	36.2	34.5	39.0	47.6	58.6	67.9	73.9	74.5	71.4	62.1	51.1	41.5	54.8

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

DELAWARE BREAKWATER, DELAWARE 38°47'N. 75°06'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1880	-	-	43.4	48.3	61.3	68.5	72.7	72.6	70.9	63.0	-	37.6	-
81	32.8	34.8	40.8	45.7	-	66.8	73.1	73.2	74.4	-	57.1	47.2	-
82	40.8	-	-	-	55.2	-	69.5	71.9	71.7	64.8	52.4	40.0	-
83	35.4	37.6	39.4	47.8	57.1	65.9	72.3	71.8	68.9	62.1	52.0	44.0	54.5
84	35.8	38.9	39.6	-	57.9	67.1	73.3	-	71.7	65.3	54.9	-	-
1885	38.5	32.6	-	-	-	-	-	-	-	-	-	-	-
	(5)	(4)	(4)	(3)	(4)	(4)	(5)	(4)	(5)	(4)	(4)	(4)	
Mean	36.7	36.0	40.8	47.3	57.9	67.1	72.2	72.4	71.5	63.8	54.1	42.2	55.2

1880-June 1881, incl., readings at 3 p.m.
July 1881 etc., readings at 2 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

OVERFALLS LIGHTSHIP 38° 47.9'N. 75° 01.4'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1905	-	-	32.7	41.6	54.4	65.0	69.2	70.3	69.6	64.2	52.0	44.0	-
1906	40.8	37.6	39.1	-	-	63.4	69.9	73.1	70.9	63.5	51.5	41.8	-
07	38.3	31.4	-	44.1	51.7	-	-	-	-	-	-	39.3	-
08	37.4	32.0	36.1	43.6	53.7	65.6	66.6	70.3	68.0	62.7	50.6	42.8	52.4
09	38.8	38.7	41.0	-	-	-	-	-	-	-	-	-	-
	(4)	(4)	(4)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	
Mean	38.8	34.9	37.2	43.1	53.3	64.7	68.6	71.2	69.5	63.5	51.4	42.0	53.2

Readings at first high water and first low water after 7 a.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

WINTER QUARTER SHOAL LIGHTSHIP 37° 57'03"N. 75° 05'29"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	71.8	73.4	66.7	55.9	47.9	-
79	37.0	35.6	40.2	45.6	55.8	62.9	-	70.2	68.2	67.0	55.6	50.4	(54.9)
1880	46.0	45.4	46.0	48.5	60.3	67.8	75.9	73.6	72.0	67.0	57.5	43.9	58.6
1881	-	33.8	38.0	42.8	54.0	65.3	73.4	71.4	73.2	67.2	62.0	52.3	(56.1)
82	44.0	42.3	43.4	47.2	52.6	62.4	69.6	75.8	72.5	62.8	55.4	44.3	56.0
83	39.4	37.8	40.9	44.6	52.5	64.2	70.2	71.2	68.3	61.3	50.0	41.4	53.5
84	30.6	36.9	37.2	42.9	54.6	61.4	66.3	71.0	71.9	66.2	53.8	43.7	53.0
1885	36.0	-	-	-	-	-	-	-	-	-	-	-	-
1886	-	-	-	-	-	-	73.0	72.7	72.6	66.3	57.7	46.2	-
87	39.0	39.3	39.2	43.2	56.4	63.9	73.6	74.1	70.0	64.0	53.9	46.1	55.2
88	39.3	35.6	36.0	43.7	52.5	65.5	70.5	-	-	-	54.6	43.1	(54.0)
89	42.2	39.6	38.9	-	56.5	62.8	69.5	65.6	68.8	60.0	54.1	49.2	(54.4)
1890	48.0	45.5	43.2	47.7	55.6	67.4	72.2	70.4	69.5	62.9	54.6	46.2	56.9
1891	40.3	41.0	40.7	46.7	54.3	64.8	70.5	74.4	72.2	-	53.3	48.6	(55.9)
92	43.0	38.2	38.5	44.2	54.5	65.0	65.9	76.5	71.7	64.4	54.4	43.7	55.0
93	33.5	33.8	36.1	42.6	53.3	64.8	71.2	73.8	70.8	63.6	55.8	47.1	53.9
94	43.1	40.4	43.2	46.7	57.7	65.0	67.6	69.6	72.0	65.0	55.6	47.2	56.1
1895	40.7	34.7	37.9	45.4	52.9	65.8	72.9	72.4	72.9	62.9	55.6	46.7	55.1
1896	40.5	39.2	37.9	44.7	57.2	66.4	69.1	73.1	69.9	61.9	57.2	-	(55.3)
97	-	-	-	-	-	-	-	-	-	-	-	-	-
98	-	39.2	42.4	47.0	53.1	63.8	72.9	72.3	70.2	66.1	56.6	45.8	(55.8)
99	-	-	-	-	54.3	66.5	68.9	72.7	72.9	64.1	57.4	50.1	(55.9)
	(16)	(17)	(17)	(16)	(18)	(18)	(18)	(19)	(19)	(18)	(20)	(19)	
Mean	40.2	38.7	40.0	45.2	54.9	64.8	70.7	72.2	71.2	64.4	55.6	46.5	55.4

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

WINTER QUARTER LIGHTSHIP 37° 55.5'N. 74° 56.4'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	54.9	65.4	70.1	73.4	72.4	64.1	51.8	47.2	-
1926	40.4	40.3	40.3	42.0	49.9	-	-	70.8	67.5	61.7	54.4	44.3	(53.9)
27	37.5	37.5	39.2	43.8	54.1	61.8	72.3	71.8	70.0	65.4	55.8	48.3	54.8
28	43.6	41.3	42.7	49.7	55.2	64.6	71.0	74.1	71.3	64.9	56.8	49.6	57.1
29	45.6	40.7	42.3	49.4	56.2	67.0	71.5	73.1	71.0	62.1	57.9	48.6	57.1
1930	44.8	41.8	42.8	47.3	55.4	66.5	72.8	72.1	73.0	63.3	55.4	48.2	57.0
1931	41.7	39.4	35.8	40.3	49.5	60.2	70.6	71.8	68.0	62.5	58.3	50.4	54.0
32	47.5	43.7	39.9	43.5	51.9	62.2	68.7	72.0	68.6	66.7	56.6	44.8	55.5
33	42.9	38.7	38.4	42.9	53.0	62.4	65.8	71.3	72.2	65.5	55.7	48.1	54.7
34	44.0	38.7	36.4	42.0	52.2	64.3	74.4	69.8	70.4	65.3	56.6	48.8	55.2
1935	42.8	38.4	39.7	43.6	52.4	63.1	71.5	73.3	70.9	63.0	58.0	48.5	55.4
1936	40.8	-	37.1	45.2	56.5	66.7	72.1	74.5	70.1	65.4	58.0	48.5	(56.3)
37	46.8	42.3	42.1	45.4	56.1	67.6	74.9	74.6	69.4	62.3	55.7	46.7	57.0
38	43.6	42.1	42.6	48.5	55.8	64.1	69.9	73.9	69.5	62.1	57.6	50.8	56.7
39	45.9	43.7	44.6	48.4	53.0	66.5	70.2	76.0	72.7	66.9	57.7	49.6	57.9
1940	41.9	37.1	39.6	43.4	52.7	64.6	-	-	-	-	-	-	-
	(15)	(14)	(15)	(15)	(16)	(15)	(14)	(15)	(15)	(15)	(15)	(15)	
Mean	43.3	40.4	40.2	45.0	53.7	64.5	71.1	72.8	70.5	64.2	56.4	48.2	55.9

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CHINCOTEAGUE, VIRGINIA 37°52'N 75°23.5'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1880	-	-	-	-	72.2	79.5	82.4	79.4	77.6	67.4	51.9	38.6	-
1881	35.7	38.1	44.4	52.1	66.5	75.0	83.4	80.3	80.1	69.1	49.9	41.4	59.7
82	-	-	-	-	60.6	-	78.0	78.3	74.8	66.3	50.9	39.3	-
83	35.4	43.8	43.3	53.0	64.5	76.0	80.1	77.8	71.1	62.9	52.4	43.0	58.6
84	36.7	42.4	44.4	51.0	64.3	-	76.1	77.0	76.1	67.2	53.3	44.2	(59.0)
1885	41.2	-	40.0	52.8	64.0	73.8	80.2	80.3	72.7	64.1	52.0	41.0	(58.6)
1886	34.3	35.7	43.4	55.4	63.8	74.6	79.6	77.8	76.0	65.8	53.1	39.0	58.2
87	36.4	43.8	43.1	-	-	-	-	-	-	-	-	-	-
	(6)	(5)	(6)	(5)	(7)	(5)	(7)	(7)	(7)	(7)	(7)	(7)	
Mean	36.6	40.8	43.1	52.9	65.1	75.8	80.0	78.7	75.5	66.1	51.9	40.9	59.0

1880-June 1881, incl., readings at 1 p.m.
July 1881 etc., readings at 2p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

CAPE CHARLES LIGHTSHIP 37°05'N. 75°41'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	59.3	68.4	72.7	74.3	73.6	65.1	53.5	45.8	-
1926	40.1	37.6	39.7	45.5	55.6	63.6	72.1	75.0	72.4	67.0	57.5	45.4	(56.0)
27	38.7	40.3	41.4	47.1	54.1	58.7	69.2	68.4	71.9	65.5	55.4	48.7	(55.0)
28	43.0	42.9	42.6	48.9	56.8	66.0	69.8	72.7	*				-
	(3)	(3)	(3)	(3)	(4)	(4)	(4)	(4)	(3)	(3)	(3)	(3)	
Mean	40.6	40.3	41.2	47.2	56.4	64.2	71.0	72.6	72.6	65.9	55.5	46.6	56.2

* On 1 Sept. '28, the lightship was moved about 6 miles to the southwest to 36°59'N. 75°42'W and the name changed to Chesapeake Lightship.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CHESAPEAKE LIGHTSHIP 36°59'N 75°42'W

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1928	-	-	-	-	-	-	-	-	70.7	68.0	58.5	50.2	-
29	46.0	40.2	43.0	51.6	60.2	67.9	72.2	75.1	73.2	65.5	59.2	50.0	58.7
1930	45.9	42.2	45.1	50.8	60.6	69.0	73.8	74.0	74.6	66.6	56.5	48.4	59.0
1931	43.0	41.2	41.2	48.0	57.9	67.2	74.1	74.5	73.7	67.7	60.6	55.6	58.7
32	50.9	50.1	45.9	50.0	58.1	69.1	74.1	75.2	71.9	67.4	59.9	49.2	60.2
33	47.0	44.1	44.3	51.6	61.6	69.2	73.2	77.1	76.7*	68.7	57.1	50.1	60.0
34	45.7	37.9	37.5	44.6	55.2	67.3	76.5	71.7	73.0	66.5	56.5	47.6	56.7
1935	41.7	37.4	43.2	46.9	58.0	67.1	72.1	73.5	70.9	64.6	57.6	46.2	56.6
1936	40.0	34.0	39.5	48.6	61.6	67.7	74.9	75.4	70.7	67.3	58.0	47.0	57.0
37	46.2	41.9	43.1	48.3	60.8	69.7	75.2	73.4	70.4	63.8	56.4	47.0	58.0
38	43.6	42.9	44.8	51.6	61.5	68.4	73.1	74.4	73.1	64.5	58.2	49.6	58.8
39	44.5	44.4	47.3	52.2	59.6	69.8	71.8	78.0	73.9	67.9	56.2	47.2	59.4
1940	40.1	36.8	38.8	46.1	56.2	70.5	-	-	-	-	-	-	-
	(12)	(12)	(12)	(12)	(12)	(12)	(11)	(11)	(12)	(12)	(12)	(12)	
Mean	44.6	41.1	42.8	49.2	59.3	68.6	73.7	74.8	72.7	66.5	57.9	49.0	58.4

*Sept. 16, 1933. Hurricane - worst storm in 25 years.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CHESAPEAKE LIGHTSHIP 39° 59'7"N. 75° 42'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	-	-	-	78.0	-	-	55.2	-
48	41.4	38.8	42.5	50.2	60.7	69.3	76.2	71.7	73.4	63.8	59.0	50.4	58.1
49	45.6	-	-	-	60.6	69.4	77.6	74.8	70.7	68.6	59.4	50.2	(59.6)
1950	49.6	46.9	-	-	51.1	60.1	62.8	65.2	68.8	67.4	60.3	47.8	(56.3)
1951	43.9	40.6	-	-	60.2	67.4	73.0	72.0	68.2	60.2	-	-	(57.5)
52	41.6	43.7	43.0	51.7	60.2	72.2	77.1	75.8	-	-	58.0	50.2	(59.2)
53	46.2	45.0	48.0	51.0	63.6	68.7	76.9	77.6	-	-	-	-	-
54	45.2	43.6	46.2	53.2	60.6	71.2	75.8	74.0	-	-	57.8	49.0	(59.5)
1955	44.0	39.3	44.8	51.6	57.9	64.0	73.5	79.5	74.2	-	-	-	(58.7)
1956	38.3	40.6	43.4	47.6	56.0	69.0	72.3	74.9	71.2	-	-	-	-
	(9)	(8)	(6)	(6)	(9)	(9)	(9)	(9)	(7)	(4)	(5)	(6)	
Mean	44.0	42.3	44.6	50.9	59.0	67.8	73.9	73.9	72.1	65.0	58.9	50.5	58.6

Readings at 0130, 0730, 1330 and 1930, EST
Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

BALTIMORE, MARYLAND 39° 16'N. 76° 35'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	79.4	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-
1875	-	-	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	41.2	50.8	61.0	74.0	80.3	80.2	75.0	65.9	-	43.3	-
78	37.8	39.2	48.7	-	65.8	70.9	-	-	-	65.4	51.1	41.6	-
79	33.8	34.9	41.5	48.8	66.0	-	79.5	79.0	72.0	67.3	49.2	42.6	(57.3)
1880	41.1	41.2	45.2	53.0	66.8	73.7	78.6	78.6	73.4	64.0	50.0	37.9	58.6
1881	33.3	34.2	37.5	45.6	-	72.4	79.0	80.7	78.6	71.2	56.9	-	(57.8)
82	-	37.2	-	-	58.6	73.7	79.1	78.7	74.2	66.0	54.0	37.5	(57.1)
83	33.4	35.4	41.1	50.4	62.8	75.2	80.3	77.1	70.1	-	50.2	41.8	(57.0)
84	33.3	37.0	40.2	-	63.6	-	77.4	78.1	-	67.4	51.5	-	(57.2)
1885	35.2	33.1	35.6	49.7	62.9	72.2	78.9	79.7	72.8	63.7	53.2	40.3	56.4
1886	34.9	34.9	39.4	54.7	62.6	71.8	76.0	77.9	76.0	66.6	52.9	37.5	57.1
87	34.8	39.1	40.8	-	-	-	-	-	-	-	-	-	-
	(9)	(10)	(10)	(7)	(9)	(8)	(9)	(10)	(8)	(9)	(9)	(8)	
Mean	35.3	36.6	41.1	50.4	63.3	73.0	78.8	78.9	74.0	66.4	52.1	40.3	57.5

Foot of South Street

1873-Oct. 1879, incl., readings at 3 p.m.
Nov. 1879-June 1871 incl., readings at 1 p.m.
July 1881 etc., readings at 2 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

WASHINGTON, D.C., POTOMAC RIVER — 38° 53'N. 77° 01'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1882	-	-	45.2	53.5	59.8	76.0	79.5	77.7	71.5	61.4	48.8	33.9	-
83	33.4	37.1	39.7	52.2	64.3	77.6	81.2	77.3	68.2	59.9	46.2	37.5	56.2
84	33.1	40.0	42.5	51.1	66.1	73.5	74.5	77.4	74.3	64.9	44.8	39.0	56.8
1885	-	34.0	35.6	53.5	65.3	74.4	81.9	78.6	70.8	59.4	47.3	35.3	(56.0)
1886	-	-	42.2	56.1	65.2	72.9	77.6	77.8	76.5	64.4	48.4	-	(57.6)
87	-	38.0	39.6	52.1	69.0	75.3	84.1	79.7	70.8	61.0	46.1	-	(57.4)
88	-	-	-	53.9	67.1	76.8	80.4	80.8	71.4	58.9	51.6	38.4	(57.8)
89	35.5	-	41.2	59.1	68.7	73.5	80.8	76.9	72.3	59.1	50.0	44.1	(58.2)
1890	44.7	42.1	44.7	57.4	57.7	78.7	82.3	80.0	75.1	64.1	50.9	37.1	59.6
1891	35.8	43.0	43.2	57.0	66.6	72.3	78.4	81.3	75.4	61.8	46.9	37.4	58.2
92	34.8	36.0	39.3	50.6	65.7	78.8	81.6	82.0	72.6	62.2	47.9	36.9	57.4
93	-	-	38.9	56.0	63.5	77.6	82.4	78.9	70.4	59.7	44.1	36.3	(56.7)
94	36.8	35.6	44.8	54.4	68.8	75.9	82.2	78.7	75.7	60.4	46.3	38.8	58.2
1895	-	-	38.8	53.9	66.2	77.7	79.1	80.2	76.1	54.7	48.5	38.9	(57.2)
1896	35.8	36.6	36.1	55.2	69.9	73.4	81.1	80.6	69.8	57.1	50.3	37.6	57.0
97	-	34.9	42.9	57.2	66.2	-	-	-	-	63.1	49.7	39.1	-
98	35.8	35.4	47.7	54.4	64.8	77.6	84.0	80.9	75.8	64.6	48.1	35.9	58.7
99	34.9	-	41.0	53.4	68.7	78.3	80.9	80.3	74.5	62.3	51.2	40.9	(58.6)
1900	34.5	35.1	39.2	54.3	68.8	76.5	83.5	78.1	74.9	64.5	52.6	39.9	58.5
1901	34.9	-	40.9	49.9	65.3	73.2	82.6	79.7	72.2	60.0	47.0	36.0	(56.6)
02	-	-	41.0	54.9	69.1	75.4	80.4	78.4	72.1	62.8	53.3	39.6	(58.3)
03	33.3	35.5	49.0	58.3	66.8	72.0	79.0	76.4	72.7	59.8	46.6	-	(57.3)
04	-	-	37.4	50.5	65.9	74.2	77.9	77.4	73.8	-	-	-	-
1905	-	-	37.3	52.9	67.0	75.0	81.5	79.2	72.2	64.1	44.5	35.6	(56.8)
1906	35.5	-	35.9	48.2	65.3	72.5	77.5	78.4	72.1	64.4	51.1	37.7	(56.3)
07	35.0	-	40.3	52.3	63.7	-	-	-	-	-	-	-	-
	(15)	(13)	(25)	(26)	(26)	(24)	(24)	(24)	(24)	(24)	(24)	(21)	
Mean	35.6	37.2	41.0	53.9	66.0	75.4	80.6	79.0	73.0	61.4	48.4	37.9	57.6

11th Street Wharf and 12th Street Wharf

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FORT WASHINGTON, MD., POTOMAC RIVER 38°42'45"N. 77°02'15"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1885	-	-	-	-	-	-	80.4	78.7	72.3	62.5	48.1	35.2	-
1886	33.7	33.5	42.3	55.8	65.6	74.1	78.4	78.8	76.2	65.8	50.1	33.4	57.3
87	33.0	41.2	40.4	52.9	70.0	76.7	83.7	81.2	71.8	61.6	46.8	40.2	58.3
88	32.9	34.1	38.5	53.8	65.8	77.8	76.7	80.3	70.0	56.7	50.3	37.2	56.2
89	38.7	34.7	43.4	54.4	67.5	73.7	78.7	74.5	69.0	56.4	47.9	40.8	56.6
1890	40.5	41.6	42.8	55.9	66.1	78.5	80.0	79.6	74.2	59.2	48.9	36.3	58.6
1891	35.8	43.1	41.9	56.9	65.3	73.7	78.6	79.4	76.1	61.8	48.1	40.7	58.4
92	35.6	38.0	-	-	-	-	-	-	-	-	-	-	-
	(7)	(7)	(6)	(6)	(6)	(6)	(7)	(7)	(7)	(7)	(7)	(7)	
Mean	35.7	38.0	41.5	55.0	66.7	75.8	79.5	78.9	72.8	60.6	48.6	37.7	57.6

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BRYANS POINT, MD. 38°41'45"N. 77°04'10"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1892	-	-	-	-	-	78.9	80.2	82.9	72.6	61.2	46.7	36.1	-
93	32.0	32.9	40.6	52.7	61.4	75.2	80.9	79.7	70.6	61.7	46.3	36.9	55.9
94	37.8	-	47.4	54.3	68.7	75.2	82.0	80.1	78.0	62.0	48.4	39.2	(59.0)
1895	33.8	32.3	41.4	54.7	65.6	78.9	80.0	81.0	78.1	60.4	49.0	39.0	57.8
1896	35.3	37.2	37.5	56.4	71.2	76.1	79.5	81.8	-	57.2	52.2	-	(58.1)
97	34.3	36.9	45.6	55.1	64.8	72.8	81.8	80.4	71.5	64.2	49.9	39.2	58.0
98	35.5	35.4	46.7	52.6	64.7	78.9	81.8	79.7	76.3	65.4	47.1	35.0	58.2
99	35.4	32.8	-	54.8	67.5	77.4	81.2	-	73.8	61.8	-	39.1	(58.0)
1900	34.9	34.3	38.4	54.1	67.5	76.7	81.4	81.8	77.8	66.0	51.7	36.5	58.4
1901	35.6	32.7	42.2	48.3	64.2	-	83.2	-	-	59.5	42.8	-	(56.5)
02	33.7	-	-	-	68.0	76.8	-	-	-	-	-	-	-
Mean													
1892	(10)	(8)	(8)	(9)	(10)	(10)	(10)	(8)	(8)	(10)	(9)	(8)	(9)
1902	34.8	34.3	42.5	53.7	66.4	76.7	81.2	80.9	74.8	61.9	48.2	37.6	57.8

Readings at 6 a.m. and 12 m. and 6 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

POINT LOOKOUT, MARYLAND 38°02.3'N. 76°19.3'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1885	37.8	34.2	-	42.9	62.3	76.7	81.8	81.2	73.6	62.5	50.4	39.0	(56.4)
1886	34.0	32.8	36.6	46.8	58.5	67.9	77.2	78.4	74.5	67.0	52.6	39.5	55.5
87	33.4	36.8	39.7	44.2	60.6	71.1	78.2	83.0	70.8	56.9	48.0	40.7	55.3
88	36.2	36.0	35.8	46.0	57.1	71.2	76.4	80.0	72.2	59.2	52.4	39.2	55.1
89	36.6	35.2	35.2	-	62.0	69.6	-	74.1	71.4	62.6	53.3	47.2	-
1890	-	44.3	43.1	44.7	-	65.0	-	70.4	71.2	-	53.6	39.2	-
1391	35.6	35.5	37.0	-	-	-	-	-	-	-	-	-	-
	(6)	(7)	(7)	(5)	(5)	(6)	(4)	(6)	(6)	(5)	(6)	(6)	
Mean	35.6	36.4	37.4	44.9	60.1	70.2	78.4	77.8	72.8	61.6	51.7	40.8	55.6

Potomac River mouth.

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

WINDMILL POINT, RAPPAHANNOCK RIVER 37° 35.8'N. 76° 14.2'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1882	41.5	42.2	45.8	53.4	61.4	72.3	78.4	79.4	75.8	67.3	55.3	42.3	59.6
83	38.2	41.9	43.4	51.9	61.5	70.9	76.5	73.8	66.7	57.4	48.4	39.4	55.8
84	31.9	34.9	37.2	48.4	63.4	70.8	75.9	77.5	75.5	67.5	-	-	(56.4)
1885	-	34.9	36.3	47.4	61.0	72.7	79.2	80.4	72.7	64.4	53.4	42.1	(56.8)
1886	34.8	33.9	39.4	51.9	63.2	72.1	78.1	78.1	75.6	68.6	55.0	40.8	57.6
87	34.3	39.0	41.6	46.6	63.4	72.9	80.8	79.6	71.9	62.7	50.8	42.2	57.2
88	37.2	35.0	37.9	48.8	61.5	73.6	77.0	80.0	72.9	60.0	53.6	41.5	56.6
89	41.0	38.1	40.1	50.6	65.4	73.3	78.1	77.4	71.6	59.2	53.8	47.1	58.0
1890	46.7	45.5	44.2	51.5	63.7	76.0	78.3	77.9	74.6	63.8	53.3	42.7	59.8
1891	-	-	42.2	52.7	61.3	71.9	75.7	79.2	75.2	63.6	51.3	-	(57.4)
92	39.4	38.3	40.9	48.9	63.6	74.3	77.6	81.4	73.4	63.6	52.2	41.2	57.9
93	31.2	34.2	39.0	48.6	61.4	74.0	78.4	78.3	74.3	65.0	52.3	44.6	56.8
94	42.0	40.2	46.0	50.2	64.4	73.1	77.9	77.2	76.6	65.4	54.4	45.0	59.4
1895	37.1	31.8	37.9	50.1	58.9	72.9	77.4	79.5	76.9	63.5	53.9	43.8	57.0
1896	37.5	39.1	39.7	50.5	66.9	73.9	80.5	81.2	73.8	61.2	55.3	42.7	58.5
97	39.1	37.4	43.8	52.9	61.7	71.7	79.2	79.2	76.9	65.1	55.4	46.1	59.0
98	39.8	38.7	45.2	48.4	56.5	71.4	78.0	80.8	76.3	67.3	53.4	41.7	58.1
99	39.2	33.6	40.5	49.9	62.1	76.4	77.6	78.1	74.2	63.8	57.0	45.0	58.1
1900	39.3	34.7	37.6	46.7	61.0	72.1	79.9	82.9	76.3	69.7	57.6	43.9	58.5
1901	37.9	34.5	38.1	-	-	72.4	81.5	80.6	75.4	64.9	53.9	39.2	(57.6)
02	34.9	31.4	39.2	47.8	-	-	77.6	77.1	72.7	66.7	-	-	(56.2)
03	36.4	36.7	43.9	51.2	60.2	68.7	78.1	76.7	73.3	62.7	49.6	38.3	56.3
04	33.0	31.5	37.4	47.1	62.1	72.7	75.7	78.2	74.8	61.6	51.1	38.8	55.3
1905	34.7	31.0	38.9	47.6	65.0	70.6	79.4	77.0	73.5	65.6	51.4	42.9	56.5
1906	40.2	35.9	38.9	48.7	61.6	71.9	76.8	78.4	76.8	68.6	51.5	41.9	57.6
07	39.8	33.8	40.2	45.5	56.4	62.9	76.7	75.0	72.6	52.9	47.7	40.3	53.6
08	37.6	-	43.6	54.1	64.5	71.7	78.3	74.6	69.4	59.1	46.9	41.2	(56.4)
09	37.5	41.6	41.0	54.5	61.9	74.3	77.1	74.4	-	56.3	51.2	36.6	(56.7)
1910	-	-	43.0	51.0	59.8	65.6	77.1	73.3	68.9	62.4	44.2	34.6	(54.5)
1911	39.1	38.2	42.6	50.0	69.2	73.8	81.0	79.2	73.6	61.2	46.2	40.8	57.9
12	-	-	40.1	56.6	65.7	71.4	76.0	75.4	70.6	59.8	47.8	41.6	(56.6)
13	41.8	37.6	47.4	53.8	63.0	74.2	80.7	77.1	70.7	59.6	48.5	42.2	58.0
14	38.9	36.3	37.1	48.3	64.2	72.9	78.0	78.3	71.1	64.7	52.0	41.4	56.9
1915	36.4	37.4	39.7	48.2	61.4	68.8	76.1	79.9	76.6	66.4	52.6	40.5	57.0

(Continued)

WINDMILL POINT, RAPPAHANNOCK RIVER - Continued

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1916	37.3	37.4	36.9	47.5	62.4	70.7	77.6	78.1	72.6	62.4	53.2	42.0	56.5
17	36.8	34.2	39.8	49.1	58.3	69.9	76.1	78.4	69.2	59.5	48.8	36.3	54.7
18	29.9	31.8	42.5	50.8	63.6	71.1	73.4	77.6	71.1	62.9	52.8	44.2	56.0
19	38.2	37.9	44.3	49.9	61.5	72.2	74.9	76.3	72.2	67.0	53.0	39.6	57.2
1920	32.4	33.1	37.7	48.6	57.9	69.8	74.8	75.4	72.1	64.3	52.5	43.2	55.2
1921	38.3	37.5	47.3	55.4	60.8	71.2	78.8	75.3	75.2	62.1	53.0	42.8	58.1
22	34.4	33.8	40.8	51.7	62.0	71.6	75.5	-	-	-	-	-	-
	(37)	(37)	(41)	(40)	(39)	(40)	(41)	(40)	(39)	(40)	(38)	(37)	
Mean	37.4	36.4	41.0	50.2	62.1	71.9	77.7	78.0	73.4	63.2	52.0	41.6	57.1

Readings at first high water and first low water after 7 a.m.

Source - USCFF, USBF

Monthly and Annual Mean Surface Water Temperatures, °F

STINGRAY POINT LIGHT HOUSE, CHESAPEAKE BAY, VIRGINIA 37°33.7'N. 76°16.2'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1882	40.4	41.6	47.6	51.5	60.7	72.9	80.4	85.8	81.2	68.8	51.3	38.1	60.0
83	35.4	35.1	40.5	48.3	63.4	75.0	80.5	78.4	72.1	64.7	53.7	45.4	57.7
84	36.4	42.2	44.1	52.7	65.2	73.0	77.1	78.5	76.3	69.2	55.0	44.0	59.5
1885	39.5	36.1	38.6	50.8	61.8	73.9	76.7	81.3	77.5	70.7	54.7	43.2	58.7
1886	38.3	34.1	39.9	47.6	-	73.3	78.5	78.1	75.0	66.9	54.4	39.5	-
87	34.6	41.2	42.8	49.0	65.0	72.8	80.9	80.7	72.5	63.2	49.6	43.0	57.9
88	37.0	36.8	39.8	51.8	62.8	74.6	78.1	79.8	73.9	60.7	54.8	42.0	57.7
89	41.6	38.3	41.8	51.9	67.1	73.9	79.2	77.6	71.7	59.7	54.0	47.5	58.7
1890	47.4	46.4	46.4	53.8	65.0	76.9	79.0	78.3	75.3	64.1	53.1	42.7	60.7
1891	38.6	43.4	43.1	53.1	62.4	72.8	76.7	78.9	75.2	64.2	48.1	44.3	58.4
92	39.6	37.2	40.2	50.6	63.5	74.9	77.3	81.1	73.4	63.1	51.1	41.0	57.8
93	31.9	-	40.7	52.1	63.0	74.1	78.7	78.6	73.5	64.6	52.5	42.5	-
94	41.4	40.2	46.5	52.4	66.8	72.6	78.6	77.3	75.6	64.7	53.0	43.7	59.4
1895	36.9	33.3	40.4	50.8	61.7	74.6	77.8	79.1	77.5	61.6	52.1	42.5	57.4
1896	36.8	39.0	40.5	51.8	67.6	74.3	79.1	81.0	72.7	61.1	55.4	42.9	58.5
97	37.0	37.4	45.2	53.8	63.7	72.2	79.6	79.7	74.9	65.1	54.4	44.8	59.0
98	39.8	38.2	45.9	52.1	61.5	73.1	78.7	80.9	76.0	67.7	53.3	40.7	59.0
99	38.1	34.9	41.1	51.2	64.9	75.3	78.5	78.9	75.0	64.8	56.2	45.8	58.7
1900	38.0	36.7	40.4	50.1	63.2	73.3	80.6	82.4	78.0	68.7	57.0	45.0	59.4
1901	39.1	34.8	41.3	49.9	61.7	72.5	79.7	80.2	75.5	64.7	51.4	39.8	57.6
02	35.4	33.3	42.5	51.4	65.7	73.2	78.6	77.7	73.4	67.6	58.1	45.1	58.5
03	37.4	39.3	47.5	54.1	64.5	70.3	78.7	77.7	73.5	61.3	49.5	35.9	57.5
04	30.8	29.8	37.3	47.2	61.2	71.9	76.5	76.1	-	63.6	51.0	39.3	-
1905	35.0	30.6	40.6	53.0	65.2	74.6	80.4	78.4	75.5	63.1	49.2	40.0	57.1
1906	37.8	35.5	38.5	48.6	60.6	70.0	74.8	77.4	74.3	62.3	49.7	39.9	55.8
07	37.2	31.6	39.6	45.4	57.7	63.6	75.2	75.6	73.3	60.3	48.6	40.0	54.0
08	37.7	32.9	41.4	51.4	60.4	71.7	76.6	75.3	68.7	61.6	49.6	42.5	55.8
09	37.9	39.4	42.5	49.9	61.0	70.6	75.3	74.2	69.9	59.2	51.0	38.9	55.8
1910	33.0	33.3	41.7	53.2	60.8	67.6	76.3	75.6	72.3	64.2	47.0	35.0	55.0
1911	35.2	37.4	40.0	47.4	61.2	71.6	77.4	76.6	73.1	63.1	49.6	41.2	56.2
12	32.3	30.7	37.2	50.9	62.1	72.8	78.8	77.0	75.7	66.0	54.5	45.2	56.9
13	44.8	40.5	46.2	55.2	63.7	71.3	77.5	-	72.8	63.7	51.4	44.3	-
14	38.0	37.2	36.1	48.9	63.5	72.6	77.2	76.9	71.1	65.1	51.0	41.5	56.6
1915	37.1	38.0	40.2	49.4	63.1	69.5	75.9	78.7	74.0	64.1	52.8	39.4	56.8

STINGRAY POINT LIGHT HOUSE - continued

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1916	37.7	39.6	36.9	47.9	62.1	69.7	75.6	76.5	69.5	60.8	50.8	39.8	55.6
17	35.3	32.2	39.3	48.3	56.5	68.4	74.7	76.7	67.4	57.2	46.5	35.1	53.1
18	-	34.0	42.6	49.3	62.0	69.2	74.3	78.4	71.1	63.6	54.1	44.4	-
19	38.8	38.7	44.3	50.7	62.4	73.8	75.1	75.5	72.1	66.5	53.2	40.0	57.6
1920	32.7	33.0	38.3	50.0	58.1	70.2	74.9	74.5	72.4	64.7	52.4	42.7	55.3
1921	38.1	37.9	47.8	55.6	60.7	70.6	78.2	74.2	74.5	60.3	52.4	42.8	57.8
22	34.1	33.4	40.9	50.9	61.7	70.9	75.1	-	-	-	-	-	-
	(40)	(40)	(41)	(41)	(40)	(41)	(41)	(39)	(39)	(40)	(40)	(40)	
Mean	37.4	36.6	41.7	50.8	62.6	72.2	77.6	78.2	73.8	63.9	52.2	41.8	57.4

Mouth of Rappahanock River

Readings at first high water and first low water after 7 a.m.

Source - USCFF, USBF

Monthly and Annual Mean Surface Water Temperatures, °F

WOLF TRAP BAR, CHESAPEAKE BAY 37° 24.2'N. 76° 11.4'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1882	40.6	41.2	45.3	51.6	59.0	71.1	77.4	78.7	75.6	66.9	54.9	40.5	58.6
83	35.8	39.3	42.0	49.4	61.4	73.3	79.4	76.9	71.3	64.2	53.1	44.9	57.6
84	36.2	39.7	42.4	50.4	63.7	71.2	76.0	77.6	76.2	68.7	54.8	45.1	58.5
1885	38.6	35.3	36.8	46.8	60.5	72.1	78.8	80.2	72.8	65.0	54.5	42.6	57.0
1886	35.0	33.9	39.6	52.6	62.8	71.3	77.7	77.5	74.7	67.1	54.8	40.7	57.3
87	34.9	39.8	42.3	48.4	61.8	72.8	80.4	79.7	72.2	63.6	50.4	43.4	57.5
88	37.8	36.0	39.1	49.7	61.5	73.7	78.0	80.0	73.6	60.5	54.7	42.4	57.2
89	41.8	39.0	41.6	50.6	65.5	72.6	77.9	77.5	71.7	60.2	54.3	48.2	58.4
1890	47.9	46.3	45.4	53.1	64.2	76.2	78.4	77.8	75.2	64.7	53.6	43.6	60.5
1891	38.9	42.9	42.9	52.1	62.0	73.1	-	79.1	74.7	63.8	51.4	44.5	(58.6)
92	39.6	37.3	39.9	49.0	62.4	73.4	77.0	81.2	73.3	63.5	51.8	41.7	57.5
	(11)	(11)	(11)	(11)	(11)	(11)	(10)	(11)	(11)	(11)	(11)	(11)	
Mean	38.8	39.2	41.6	50.3	62.2	72.8	78.1	78.7	73.8	64.4	53.5	43.4	58.1

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

JAMES RIVER AT RICHMOND 37°32'N. 77°27'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1876	-	-	-	-	-	-	-	-	73.1	57.7	51.1	34.2	-
77	36.0	44.9	48.9	57.0	65.1	79.2	83.6	82.6					

Readings at 9 a.m., 3 p.m., and 6 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

YORK SPIT LIGHT, VIRGINIA 37° 12.6'N. 76° 15.5'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1882	41.4	41.9	45.8	52.6	59.9	70.4	74.9	-	-	-	-	-	-
83	-	-	-	51.7	62.0	72.8	78.9	77.2	71.8	64.8	54.7	45.9	-
84	37.6	40.4	43.2	50.8	63.4	71.7	76.3	77.5	76.4	69.2	55.7	45.9	59.0
1885	40.2	36.4	37.7	48.5	61.3	72.8	78.7	80.0	73.5	65.6	55.3	43.1	57.8
1886	35.4	34.8	40.1	53.1	63.5	71.7	77.9	77.1	75.0	67.0	55.0	40.6	57.6
87	35.4	40.0	42.2	48.6	63.8	72.7	79.2	76.7	70.2	61.1	48.4	41.8	56.7
88	37.0	34.7	38.8	49.4	60.8	73.1	76.6	78.9	72.2	59.5	53.2	40.7	56.2
89	41.9	38.2	40.7	50.4	64.9	72.8	76.8	-	70.8	59.5	53.3	47.4	-
1890	47.0	45.5	44.4	52.7	63.6	75.0	77.2	76.4	73.9	63.9	53.1	43.0	59.6
1891	38.2	41.7	42.5	51.9	61.8	71.7	75.6	77.9	75.0	63.5	50.8	44.8	58.0
92	40.3	37.6	39.7	48.8	61.8	72.6	75.6	80.6	73.8	63.4	51.2	41.7	57.2
93	30.9	34.6	39.3	49.9	60.3	72.1	78.0	78.0	74.9	65.2	53.4	43.9	56.7
94	42.0	40.3	45.6	50.8	65.6	70.7	76.2	75.6	75.5	65.2	53.7	44.6	58.8
1895	36.8	32.7	38.4	49.3	59.8	72.7	76.7	77.6	76.8	62.4	53.6	43.2	56.7
1896	37.0	37.9	39.3	50.5	65.8	-	77.4	79.2	72.3	61.4	56.1	-	-
97	-	38.1	44.7	53.2	62.5	71.3	79.7	79.2	75.8	-	56.9	46.1	-
98	40.3	39.3	45.7	52.2	60.8	72.2	79.1	81.0	75.0	68.3	54.8	42.2	59.2
99	39.2	-	40.5	51.1	64.2	73.5	77.1	77.5	71.5	61.8	53.0	44.6	-
1900	42.2	40.0	41.9	50.9	64.9	76.2	81.7	82.4	76.7	65.1	54.8	42.2	59.9
1901	38.8	34.4	45.8	50.1	62.1	74.3	82.2	77.6	72.6	59.2	44.3	41.2	56.9
02	35.1	34.1	44.3	53.8	66.6	75.0	80.0	76.5	71.5	64.6	56.7	42.3	58.4
03	37.4	41.5	50.3	52.4	64.8	68.8	78.5	77.1	72.8	60.6	48.8	36.9	57.5
04	31.5	30.6	36.7	47.0	60.4	70.9	74.8	75.0	71.7	61.7	49.6	38.7	54.0
1905	-	-	37.2	48.1	61.9	69.8	79.8	77.3	73.9	66.9	53.2	44.0	-
1906	41.3	38.1	41.7	50.1	62.0	72.2	77.5	79.2	75.9	66.5	53.7	44.5	58.6
07	41.2	35.6	41.5	47.2	59.4	66.7	76.2	77.4	75.8	63.4	51.7	43.5	56.6
08	41.9	36.7	45.0	54.4	63.5	73.4	75.9	74.1	67.0	60.8	49.0	42.7	57.0
09	38.9	39.4	42.1	52.6	61.7	70.2	71.8	73.0	68.8	59.4	51.5	43.3	56.0
1910	-	-	43.2	53.9	60.2	67.5	75.6	-	61.9	-	49.5	38.6	-
1911	37.9	40.1	42.4	49.7	63.0	73.4	79.2	78.7	76.4	66.8	53.7	45.4	58.9
12	-	33.0	39.6	52.3	63.7	70.9	77.0	76.4	75.5	66.0	-	43.2	-
	(26)	(27)	(30)	(31)	(31)	(30)	(31)	(28)	(30)	(28)	(29)	(29)	
Mean	38.7	37.7	42.0	50.9	62.6	72.0	77.5	77.7	73.2	63.7	52.7	43.0	57.6

Readings at first high water and first low water after 7 a.m.

Source - USCFF, USBF

Monthly and Annual Mean Surface Water Temperatures, °F

NORFOLK, VIRGINIA 36°51'N. 76°18'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	74.9	63.2	49.8	45.9	-
74	43.8	44.9	50.8	55.3	66.4	80.3	80.8	79.1	76.5	66.5	-	-	(61.8)
1875	38.2	-	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	50.1	56.1	64.3	74.0	80.1	79.3	70.6	62.5	54.3	43.2	(59.9)
78	35.6	42.9	54.9	59.9	69.3	73.9	85.1	-	81.5	65.4	52.8	43.5	(62.1)
79	37.6	40.3	-	56.5	68.1	77.5	80.9	79.5	73.4	-	51.0	48.8	(60.7)
1880	48.2	49.1	50.4	54.4	71.6	77.2	81.2	-	76.1	65.7	-	40.9	(62.4)
1881	38.4	40.5	47.2	52.4	69.9	77.3	83.8	81.4	80.4	72.2	58.8	46.4	62.4
82	42.9	45.8	-	-	65.5	-	80.8	81.7	76.4	67.4	53.9	40.4	(61.3)
83	38.4	48.9	47.4	58.0	68.0	78.6	82.3	79.3	71.5	64.2	55.4	-	(61.3)
84	37.5	47.2	49.0	54.5	68.8	74.5	77.9	79.0	-	67.8	55.3	-	(60.9)
1885	42.7	38.3	42.0	55.4	65.1	75.9	81.7	81.6	73.5	64.4	54.4	45.2	60.0
1886	37.6	39.1	45.4	56.3	65.8	74.4	79.0	78.8	74.9	66.7	55.1	37.7	59.2
87	37.5	45.2	46.6	-	-	-	-	-	-	-	-	-	-
	(12)	(11)	(10)	(10)	(11)	(10)	(11)	(9)	(11)	(11)	(10)	(9)	
Mean	39.9	43.8	48.4	55.9	67.5	76.4	81.2	80.0	75.4	66.0	54.1	43.6	61.0

Elizabeth River at Boston Steamship Co. wharf.

1873-Oct. 1879, incl., readings at 3 p.m.
Nov. 1879-June 1881, incl., readings at 1 p.m.
July 1881, etc., readings at 2 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BODY'S ISLAND LIGHT HOUSE, OREGON INLET 35°49'07"N. 75°33'49"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1880	-	-	-	-	-	-	-	79.4	79.0	69.0	56.4	40.8	-
1881	39.3	-	50.6	53.4	67.9	76.9	89.4	-	82.4	69.1	61.0	50.0	(64.4)
82	44.5	53.6	60.5	-	67.6	76.5	85.5	88.0	78.4	67.7	60.9	39.3	(65.0)
83	40.9	48.2	51.8	62.7	66.1	78.5	85.7	76.6	71.8	62.5	62.6	-	(62.6)
	(3)	(2)	(3)	(2)	(3)	(3)	(3)	(3)	(4)	(4)	(4)	(3)	
Mean 1880-83	41.6	50.9	54.3	58.0	67.2	77.3	86.9	81.3	77.9	67.1	60.2	43.4	63.8

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

DIAMOND SHOAL LIGHTSHIP 35° 05'N. 75° 20'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1923	-	-	-	-	73.8	78.1	78.8	79.7	77.2	74.5	62.4	66.0	-
24	60.8	52.0	48.0	55.4	62.8	72.7	78.8	80.4	77.5	71.4	65.7	66.7	66.0
1925	58.1	65.1	65.1	63.9	70.7	78.6	81.0	81.3	81.5	74.5	70.9	69.8	71.7
1926	63.9	56.1	57.9	62.4	70.0	76.1	79.5	81.1	79.5	75.4	68.2	55.9	68.8
27	60.6	61.9	57.2	62.2	72.9	74.7	77.4	79.5	75.9	72.9	66.7	63.7	68.8
28	65.5	64.8	64.9	66.6	69.0	74.8	78.8	82.0	80.5	73.8	71.2	68.2	71.7
29	66.2	64.6	60.5	66.0	73.4	77.4	79.6	80.6	77.1	73.3	73.5	68.9	71.8
1930	69.5	67.4	66.9	68.7	72.6	74.1	80.3	79.5	77.8	67.5	62.7	-	(71.1)
1931	60.2	60.9	50.1	55.3	63.4	68.3	76.1	78.4	76.8	70.2	68.5	67.8	66.3
32	63.8	66.1	57.5	61.7	68.1	75.9	80.0	81.8	79.0	77.4	71.8	69.4	71.0
33	63.5	63.8	64.0	66.7	72.0	74.5	75.4	81.8	-	72.9	66.7	68.0	(70.6)
34	64.3	60.5	62.7	64.5	69.1	75.4	79.7	80.8	79.4	74.4	75.0	69.8	71.3
1935	67.8	63.8	67.2	65.8	-	79.4	79.6	-	72.7	70.9	62.7	55.9	69.8
1936	62.6	55.2	61.5	61.7	73.4	76.9	80.4	81.9	79.1	77.7	73.1	71.0	71.2
37	66.8	60.8	60.6	66.7	73.3	79.4	81.0	82.9	79.8	75.6	70.7	64.7	71.9
38	66.6	59.6	54.7	62.9	-	76.2	80.1	79.9	80.6	73.1	71.5	69.9	(70.5)
39	66.0	63.1	66.5	68.3	69.3	78.1	79.6	79.6	77.7	74.9	64.7	60.7	70.7
1940	53.8	50.0	48.8	55.1	64.8	76.4	-	-	-	-	-	-	-
1947	-	-	-	-	-	-	-	80.0	81.4	76.9	72.7	73.5	-
48	68.8	65.0	70.4	72.8	76.0	-	-	81.8	79.2	72.5	72.8	61.2	(73.0)
49	55.1	61.8	58.6	68.3	72.3	78.6	81.9	80.7	78.8	76.0	73.0	-	(70.9)
1950	-	-	67.2	69.7	71.8	75.6	76.9	79.3	75.8	71.8	68.8	63.3	(70.4)
1951	-	-	61.7	67.6	67.8	75.9	81.0	81.0	78.9	72.2	69.3	67.4	(70.6)
52	-	-	60.3	63.0	68.6	73.1	79.8	79.4	76.9	69.8	66.6	58.4	(68.3)
53	-	-	58.2	67.2	72.4	75.7	76.0	77.1	75.8	72.9	64.4	62.3	(62.8)
54	-	-	67.0	71.4	74.8	80.4	81.8	83.8	81.8	79.4	70.5	69.1	(73.7)
1955	64.8	-	-	-	74.1	77.2	82.7	83.1	80.9	79.0	70.3	66.6	(72.1)
1956	49.1	62.5	62.2	-	-	76.9	79.9	77.6	77.3	-	-	-	-
	(21)	(20)	(25)	(24)	(24)	(26)	(25)	(26)	(26)	(26)	(26)	(24)	
Mean	62.8	61.2	60.8	64.7	70.7	76.2	79.4	80.6	78.4	73.9	69.0	65.8	70.3

1923- Apr. 1928 incl., readings at 0000, 0400, 0800, 1200, 1600 and 2000 hours.
Source - USC&GS, 1955
May 1928-1940 incl., readings at 8 a.m. and 6 p.m. Source - USBF
1947-1956, readings at 0130, 0730, 1330 and 1930 EST. Source - NWRC.

Monthly and Annual Mean Surface Water Temperature, °F

CAPE LOOKOUT, N.C. 34°37'20"N. 76°31'26"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1879	-	-	-	-	-	-	-	-	-	70.0	61.0	58.6	-
80	57.8	56.8	58.6	62.9	69.7	-	80.9	80.1	78.2	69.9	60.1	49.9	(66.7)
1881	45.9	46.5	51.0	55.5	71.3	75.9	79.1	79.8	80.3	73.2	64.6	56.4	65.0
82	53.7	55.3	58.4	62.4	67.6	76.7	80.9	81.7	78.5	71.8	60.3	51.5	66.6
83	48.2	52.4	54.3	61.2	69.4	77.8	82.4	81.2	76.8	70.4	63.2	55.3	66.0
84	49.2	58.5	58.8	61.8	71.9	76.2	80.2	79.2	79.3	73.9	62.9	56.5	67.4
1885	51.6	49.9	52.1	-	64.9	73.4	77.8	78.2	71.7	64.0	55.6	46.8	(62.2)
1886	40.7	42.1	46.0	56.1	64.7	71.4	76.2	74.1	74.4	64.7	55.0	45.0	59.2
87	41.7	48.8	48.2	54.8	65.1	70.7	74.6	75.4	70.8	63.7	53.9	-	(60.1)
88	50.0	52.1	53.0	62.6	70.4	76.7	79.4	81.2	77.5	67.0	61.0	51.9	65.2
89	52.7	50.6	52.9	61.1	72.7	-	80.1	78.7	76.2	67.2	61.9	58.9	(65.7)
1890	58.7	60.1	58.5	62.0	72.5	79.6	80.6	79.8	78.7	69.8	61.1	52.5	67.8
1891	51.0	57.8	-	64.0	71.2	79.0	79.7	81.0	77.9	67.1	58.7	57.3	66.6
92	52.3	51.4	52.4	60.9	70.2	77.0	77.4	79.9	75.9	68.6	60.1	53.0	64.9
93	43.3	-	53.3	61.7	68.5	76.0	80.4	78.4	69.4	61.1	55.8	52.6	(62.7)
94	52.7	52.5	58.0	61.1	71.8	75.9	79.6	79.8	-	70.2	60.5	55.8	(66.2)
1895	50.7	44.8	52.9	59.9	67.6	73.2	77.8	79.4	78.6	68.4	61.3	53.2	64.0
1896	48.3	51.5	52.8	60.9	72.0	75.7	78.8	79.2	77.9	64.6	64.4	51.4	64.8
97	49.3	50.9	57.2	60.5	69.3	77.0	80.4	79.7	78.0	70.5	63.4	58.5	66.2
98	54.6	51.9	58.9	62.4	70.1	75.2	80.6	80.2	77.2	72.7	62.3	53.4	66.6
99	54.9	52.2	58.2	59.1	68.1	77.1	79.1	80.2	-	69.7	64.6	55.2	(66.2)
1900	52.4	48.2	56.1	61.6	-	-	-	-	-	-	-	-	-
	(21)	(20)	(20)	(20)	(20)	(18)	(20)	(20)	(18)	(21)	(21)	(20)	
Mean	50.5	51.7	54.6	60.6	69.4	75.8	79.3	79.4	76.5	68.5	60.6	53.7	65.0

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

CAPE LOOKOUT SHOAL LIGHTSHIP, N.C. 34°18.2'N. 76°24.2'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	70.6	76.1	79.8	80.0	79.9	74.9	67.7	63.1	-
1926	60.1	55.5	55.1	57.5	68.6	73.4	78.4	80.6	79.1	74.1	65.0	60.7	67.3
27	59.2	63.3	61.7	60.5	66.7	74.9	77.2	79.1	76.6	72.3	67.0	64.9	68.6
28	58.2	58.1	61.5	62.0	69.8	75.3	77.3	80.0	78.8	76.4	65.0	64.1	68.9
29	60.7	62.0	61.2	69.1	73.5	76.8	80.7	80.6	78.3	71.5	69.4	63.6	70.6
1930	65.1	59.5	59.1	65.6	71.2	75.3	80.2	79.5	78.8	71.8	62.9	63.4	69.4
1931	58.7	60.2	58.3	61.3	64.0	70.6	79.8	81.1	80.9	73.9	71.0	68.0	69.0
32	66.8	66.0	60.4	62.8	68.0	75.8	79.8	80.4	78.8	74.1	68.5	62.3	70.3
33	58.9	57.2	57.3	60.3	66.0	73.3	77.3	-	-	-	-	-	-
	(8)	(8)	(8)	(8)	(9)	(9)	(9)	(8)	(8)	(8)	(8)	(8)	
Mean	61.0	60.2	59.3	62.4	68.7	74.6	78.9	80.2	78.9	73.6	67.1	63.8	69.0

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

FORT MACON, N.C. 34°42'N. 76°41'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1883	-	-	-	-	-	-	-	79.8	75.6	68.8	61.0	53.7	-
84	46.9	57.3	58.2	72.4	79.6	-	-	78.8	72.4	72.4	61.9	-	-
1885	49.6	46.6	49.8	61.4	70.5	77.5	82.5	81.9	77.4	68.7	61.0	50.4	64.8
1886	45.0	46.6	51.2	63.0	-	-	81.0	80.1	78.5	70.2	69.1	49.5	-
	(3)	(3)	(3)	(3)	(2)	(1)	(2)	(4)	(4)	(4)	(4)	(3)	
Mean	47.2	50.2	53.1	65.6	75.0	77.5	81.8	80.2	76.0	70.0	63.2	51.2	65.7

Readings at 2 p.m., 75th meridian time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BEAUFORT, NORTH CAROLINA, FISHERIES LABORATORY 34° 42.5'N. 76° 41'W

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1913	-	-	-	-	-	77.0	82.0	81.9	76.3	67.8	56.5	50.9	-
14	48.9	48.9	49.6	62.2	71.6	79.0	82.4	82.0	75.9	69.1	57.6	50.0	64.8
1915	48.4	50.9	50.7	60.8	72.0	77.4	83.1	83.7	80.6	71.6	60.4	47.1	65.6
1916	51.4	50.5	52.2	61.3	72.7	79.2	82.4	82.4	77.2	68.4	60.1	51.1	65.7
17	50.7	47.8	56.3	64.0	68.9	78.8	82.6	82.6	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	49.8	-
1920	46.4	47.5	55.0	-	63.1	71.1	79.7	-	79.9	73.8	61.9	54.1	(64.9)
1921	51.6	54.0	63.7	67.6	70.2	79.7	83.7	82.9	84.4	70.5	64.4	53.8	68.9
22	47.7	52.5	60.8	67.6	74.3	79.5	82.4	79.3	75.2	68.4	59.4	52.3	66.6
23	50.2	45.5	56.1	60.3	68.9	-	81.3	83.8	80.2	66.7	55.8	55.9	(65.3)
24	50.5	49.6	53.2	64.8	73.8	80.1	80.2	78.8	75.6	67.5	59.4	50.7	65.4
1925	47.7	53.2	56.8	63.1	70.7	79.2	81.5	79.0	81.3	69.3	56.3	51.3	65.8
1926	52.0	54.7	54.7	64.9	74.1	81.3	86.4	88.2	84.0	74.5	61.2	54.3	69.2
27	47.7	59.4	58.1	63.9	73.8	77.9	83.3	82.0	80.2	71.6	63.0	55.8	68.1
28	49.5	52.2	57.0	65.1	70.9	81.7	83.8	85.6	79.7	73.2	60.1	52.7	67.6
29	53.1	52.0	61.2	67.6	74.5	80.2	84.0	83.1	79.3	68.9	61.9	52.9	68.2
1930	53.1	54.7	55.8	66.4	76.1	79.7	84.9	80.8	82.4	67.3	58.3	48.9	67.4
1931	49.1	51.1	52.9	64.6	73.2	80.1	85.8	84.6	82.8	72.1	-	59.4	(68.0)
32	59.5	58.3	55.4	65.1	72.7	79.7	84.6	83.3	77.5	71.1	59.5	55.2	68.5
	(17)	(17)	(17)	(16)	(17)	(17)	(18)	(17)	(17)	(17)	(16)	(18)	
Mean	50.4	51.9	55.9	64.3	71.9	78.9	83.0	82.6	79.6	70.1	59.7	52.6	66.7

One reading per day

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

FRYING PAN SHOALS LIGHTSHIP 33°35'N. 77°50'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	-	-	72.4	64.2	57.4	-
79	50.3	49.2	-	59.8	66.4	72.5	79.8	80.2	77.3	74.7	65.6	62.7	(66.2)
1880	64.5	59.3	62.1	61.6	72.0	76.4	81.4	80.7	79.4	74.0	66.6	58.6	69.7
1881	53.0	52.3	53.1	57.1	68.0	76.4	80.8	80.4	79.9	76.4	69.5	60.3	67.3
82	56.4	58.6	60.0	63.8	-	75.4	80.5	80.9	79.3	71.6	60.9	53.9	(67.6)
83	50.9	54.6	54.9	59.8	67.5	75.9	80.8	77.9	76.6	72.1	63.6	59.3	66.2
84	55.9	58.7	57.7	61.2	68.7	74.4	78.7	79.0	78.5	76.2	66.5	62.1	68.1
1885	56.6	52.6	53.2	58.8	68.8	76.9	80.6	82.0	79.7	73.3	-	-	(67.4)
1886	-	51.8	55.6	62.3	69.6	76.5	79.6	77.7	78.3	74.2	65.9	59.5	(67.2)
87	53.9	54.7	54.3	61.1	70.5	76.0	80.9	78.9	76.4	74.2	64.4	60.2	67.1
88	57.8	59.2	56.1	61.7	70.3	77.2	78.9	81.5	78.6	71.1	-	55.0	(67.8)
89	55.7	51.8	54.2	60.8	69.8	76.7	79.8	80.2	78.9	72.1	66.3	66.0	67.7
1890	63.2	62.0	61.8	64.1	71.9	79.4	81.0	80.7	80.3	74.1	67.2	60.5	70.5
1891	55.2	60.8	60.4	63.7	71.3	79.0	80.0	81.7	79.3	72.5	63.0	60.3	68.9
92	54.7	52.2	53.2	60.0	69.5	77.2	78.8	81.5	79.1	74.4	66.7	64.5	67.7
93	50.9	53.8	54.8	61.5	69.6	77.0	81.2	80.1	79.6	73.7	63.8	59.5	67.1
94	58.5	55.7	60.7	64.7	72.8	76.7	79.2	81.6	80.1	73.6	-	60.8	(69.2)
1895	53.6	46.3	52.9	61.1	69.0	77.2	80.0	82.0	80.6	-	-	-	(66.9)
1896	57.3	55.3	55.2	61.1	74.3	78.0	80.2	80.1	79.0	70.7	68.7	60.7	68.4
97	57.9	54.9	57.3	64.5	70.2	77.5	82.6	81.3	79.0	73.9	67.2	66.1	69.4
98	56.5	57.0	60.3	62.2	70.0	76.1	80.4	81.9	79.5	75.2	66.0	59.9	68.8
99	59.2	52.2	54.0	-	-	-	79.4	80.6	79.7	73.6	66.8	60.6	(67.9)
1900	55.9	52.6	55.0	61.6	69.8	-	80.6	82.6	81.2	77.0	68.8	62.5	(68.7)
1901	55.8	51.5	-	-	67.7	75.9	79.7	81.4	78.8	71.4	61.7	54.5	(66.4)
02	51.4	46.5	52.5	-	-	-	81.8	79.8	77.6	74.0	69.4	61.3	(66.9)
03	56.4	55.8	64.1	64.0	68.7	76.6	81.1	81.8	79.9	72.4	65.3	57.5	68.6
04	53.4	52.5	56.2	-	-	-	-	81.0	-	73.1	65.3	61.7	(67.6)
1905	54.4	53.2	56.1	62.6	72.5	77.5	81.5	81.3	80.9	75.9	66.7	61.6	68.7
1906	56.8	56.0	56.9	62.4	71.1	78.0	80.8	82.5	80.7	75.6	68.5	60.9	69.2
07	61.1	54.8	-	-	-	-	81.7	81.0	80.1	74.8	-	-	(68.7)
	(28)	(29)	(26)	(24)	(24)	(24)	(28)	(29)	(28)	(29)	(25)	(27)	
Mean	56.0	54.3	56.6	61.7	70.0	76.7	80.4	80.8	79.2	73.7	65.9	60.3	68.0

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FRYING PAN SHOALS LIGHTSHIP 33°27'55"N. 77°35'25"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1908	58.5	58.1	60.0*	65.2	71.5	77.6	80.2	81.1	78.8	73.5	69.7	64.8	69.9
09	63.9	58.0	62.4	65.9	70.8	78.0	78.8	80.6	79.1	73.9	71.6	62.8	70.5
1910	62.0	-	64.6	66.6	-	-	-	-	-	-	-	-	-
	(3)	(2)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	
Mean	61.5	58.0	62.3	65.9	71.2	77.8	79.5	80.8	79.0	73.7	70.7	63.8	70.4

* Position shifted to 33°28'12"N. 77°36'06"W.

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FRYING PAN SHOALS LIGHTSHIP 33°34.1'N. 77°48.8'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	69.4	74.9	78.7	77.8	78.9	74.7	64.8	60.4	(67.5)
1926	55.3	52.9	52.2	57.0	64.7	72.7	78.2	80.4	79.0	74.2	67.1	63.2	66.4
27	-	-	-	-	-	-	-	-	-	-	-	-	-
28	52.7	55.3	57.2	62.2	66.2	74.7	77.8	80.9	78.4	76.7	67.5	58.8	67.4
29	55.8	57.6	60.0	65.9	69.7	75.8	80.4	80.1	78.3	72.8	70.8	65.3	69.4
1930	58.8	58.4	57.9	62.7	72.4	75.4	*	-	-	-	-	-	-
	(4)	(4)	(4)	(4)	(5)	(5)	(4)	(4)	(4)	(4)	(4)	(4)	
Mean	55.6	56.0	56.8	62.0	68.5	74.7	78.8	79.8	78.6	74.6	67.6	61.9	67.9

* Changed station

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

FRYING PAN SHOALS LIGHTSHIP 33°28.0'N. 77°34.0'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	-	-	-	-	-	-	-	80.0	81.2	74.0	68.8	59.9	-
1931	58.7	60.9	61.0	61.9	66.5	71.5	79.7	80.0	79.6	78.3	72.4	69.6	70.0
32	67.7	66.3	61.4	63.9	69.1	74.6	76.6	78.8	78.8	77.3	72.5	68.2	71.3
33	65.1	61.5	64.3	66.8	73.4	76.8	79.4	81.7	81.8	78.2	70.9	67.4	72.3
34	65.9	61.0	65.0	67.7	70.8	77.1	82.0	80.0	80.5	77.8	71.1	68.3	72.3
	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(5)	(5)	(5)	(5)	(5)	
Mean	64.4	62.4	62.9	65.1	70.0	75.0	79.4	80.1	80.4	77.1	71.1	66.7	71.2

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

FRYING PAN SHOALS LIGHTSHIP 33° 28'N. 77° 34'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	-	-	82.0	81.2	75.6	73.2	70.4	-
48	66.2	63.8	64.0	69.9	-	-	81.8	81.5	80.9	75.0	74.3	71.0	(73.1)
49	68.6	64.2	63.2	65.2	-	-	81.6	80.6	78.8	77.6	70.4	67.6	(72.2)
1950	68.5	65.6	66.6	66.8	-	-	79.0	80.8	79.8	77.0	72.8	65.9	(72.7)
1951	61.0	61.9	61.4	62.8	-	-	78.2	81.0	81.0	73.6	66.7	61.7	(69.9)
52	62.9	63.0	62.0	-	74.2	79.6	80.6	82.2	79.0	74.6	69.8	63.9	(71.4)
53	63.1	61.2	-	-	-	77.6	80.5	80.3	79.5	75.5	69.4	68.5	(71.3)
54	63.2	60.6	61.0	-	-	77.2	79.9	78.3	75.3	71.6	65.2	60.2	(69.2)
1955	57.9	55.5	62.0	65.6	71.0	74.3	80.2	79.8	78.0	74.8	68.2	64.4	69.3
1956	60.0	62.0	60.6	62.7	71.2	76.1	79.8	80.1	78.8	-	-	-	-
	(9)	(9)	(8)	(6)	(3)	(5)	(9)	(10)	(10)	(9)	(9)	(9)	
Mean	63.4	62.0	62.6	65.5	72.1	77.0	80.2	80.7	79.2	75.0	70.0	66.0	71.1

Readings at 0130, 0730, 1330 and 1930 EST.

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

SMITHVILLE, NORTH CAROLINA 33° 52'N. 78° 00'W. (?)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1880	-	-	58.8	63.5	73.4	79.6	87.0	80.3	78.8	68.2	58.0	48.5	(66.2)
1881	43.2	48.1	52.8	57.5	-	79.7	83.5	81.7	81.1	73.9	64.2	54.3	(66.0)
82	50.6	53.4	-	-	71.2	-	82.9	83.6	77.3	70.4	59.0	49.1	(66.0)
83	-	49.5	55.4	-	69.4	78.6	84.2	82.2	75.8	70.7	61.6	55.1	(65.9)
84	46.2	58.0	57.2	-	74.0	77.7	-	81.1	-	72.8	61.2	-	(66.8)
1885	50.1	48.4	49.5	60.7	72.6	78.9	82.6	83.8	75.2	67.6	60.6	50.2	65.0
1886	45.3	47.8	52.2	62.9	73.4	78.3	80.7	80.2	79.7	71.2	-	-	(65.3)
	(5)	(6)	(6)	(4)	(6)	(6)	(6)	(7)	(6)	(7)	(6)	(5)	
Mean	47.1	50.9	54.3	61.2	72.3	78.8	83.5	81.8	78.0	70.7	60.8	51.4	65.9

Cape Fear River, foot of Government Wharf.

1880-June 1881 incl., readings at 1 p.m.
July 1881 etc., readings at 2 p.m., 75th meridian time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

WILMINGTON, NORTH CAROLINA 34° 14'N. 77° 57'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	74.3	65.0	54.5	50.0	-
74	48.0	48.0	56.0	63.3	68.1	80.7	82.0	78.5	76.5	64.9	57.7	48.7	64.4
1875	44.5	46.8	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	56.4	61.5	68.9	78.8	84.6	82.7	75.2	66.0	59.7	52.4	(65.2)
78	46.7	47.1	53.0	61.1	70.1	76.9	84.6	84.1	78.5	70.1	57.3	48.9	64.9
79	44.8	48.4	58.8	62.2	71.0	80.9	83.7	80.7	-	74.7	64.4	61.2	(67.3)
1880	57.4	58.2	61.4	69.9	77.8	83.3	85.8	-	78.6	70.5	59.5	-	(69.6)
1881	42.5	48.0	56.1	58.3	75.1	80.9	85.7	-	80.7	-	63.0	52.7	(66.1)
82	-	53.1	-	-	70.6	79.3	83.7	81.8	76.8	70.4	57.9	46.6	(65.4)
83	46.2	53.4	52.2	61.2	70.3	-	84.7	83.2	73.6	68.1	57.8	-	(66.2)
84	43.6	54.1	55.1	-	73.3	-	-	78.8	-	74.4	60.8	-	-
1885	49.3	46.1	49.0	61.9	72.7	77.8	84.0	-	78.1	70.0	-	-	(65.1)
1886	42.0	44.5	53.2	63.8	71.2	78.2	79.3	80.0	78.4	-	-	-	(64.2)
	(10)	(11)	(10)	(9)	(11)	(9)	(10)	(8)	(10)	(10)	(10)	(7)	
Mean	46.5	49.8	55.1	62.6	71.7	79.6	83.8	81.2	77.1	69.4	59.3	51.5	65.6

Cape Fear River, foot of Market Street; 1875 - Princess Street; March 1884 - near Custom House Wharf; October 1884 - Princess Street.

1873-Oct. 1879 incl., readings at 3p.m.
Nov. 1879-June 1881 incl., readings at 1 p.m.
July 1881 etc. readings at 2p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

RATTLESNAKE SHOAL LIGHTSHIP 32°44'00" N. 79°43'44"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	-	-	72.4	63.4	54.4	-
79	48.7	51.2	55.8	63.4	71.7	77.9	82.9	81.6	76.3	74.3	63.3	59.3	67.2
1880	59.5	57.3	63.0	66.0	74.1	79.3	84.0	83.8	81.1	71.9	61.7	53.8	69.6
1881	48.7	51.0	55.1	59.9	72.1	80.2	84.2	82.8	82.7	76.2	67.3	57.5	68.1
82	55.0	57.2	61.2	66.9	73.2	79.0	81.8	82.6	80.9	73.7	62.6	52.1	68.8
83	50.1	54.8	55.9	63.2	71.1	79.0	83.2	83.6	77.6	73.4	63.9	57.6	67.8
84	50.0	57.3	58.5	64.5	73.6	76.6	81.6	81.3	80.2	76.0	65.0	57.6	68.5
1885	52.7	51.1	53.7	61.4	70.5	78.4	81.4	81.8	78.9	70.6	63.1	53.6	66.4
1886	46.5	49.2	52.9	62.3	72.1	78.6	-	80.2	79.6	72.6	63.5	52.8	-
87	48.3	54.6	56.6	62.2	73.4	78.8	81.2	82.7	76.8	71.0	61.1	54.2	66.7
88	53.2	54.1	56.8	65.1	72.9	78.7	80.0	83.5	79.8	69.5	63.1	53.1	67.5
89	53.8	50.3	54.3	62.2	71.8	77.8	80.7	79.5	79.0	70.0	64.6	59.4	67.0
1890	60.4	60.0	57.8	65.3	73.4	81.3	82.5	82.4	80.2	73.0	65.5	56.2	69.8
1891	51.5	56.8	57.0	64.9	71.7	79.9	81.2	82.4	79.6	69.4	60.1	55.2	67.5
92	50.8	52.4	54.5	62.1	71.2	78.0	80.7	81.3	77.6	71.0	-	55.5	-
93	45.6	50.7	54.6	62.6	70.0	77.3	80.4	-	78.4	69.4	59.7	54.5	-
94	53.1	53.2	57.6	63.2	71.9*	-	-	-	-	-	-	-	-
	(14)	(16)	(16)	(16)	(16)	(15)	(14)	(14)	(15)	(16)	(15)	(16)	
Mean	52.6	53.8	56.6	63.4	72.2	78.7	81.8	82.1	79.2	72.2	63.2	55.4	67.6

*Moved to 32°42.1'N 79°46.1'W as Charleston Bar Lightship

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

CHARLESTON BAR LIGHTSHIP 32°42.1'N. 79°46.1'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1894	-	-	-	-	-	78.6	81.3	82.8	81.1	72.4	63.0	57.2	-
1895	49.5	47.2	54.1	62.4	71.4	77.9	81.2	82.8	81.1	69.9	61.8	53.6	66.1
1896	50.9	53.3	54.9	63.1	74.4	80.4	83.1	81.7	79.9	69.1	65.8	54.1	67.6
97	50.4	51.6	59.2	63.2	69.3	77.8	80.5	81.0	77.2	70.0	63.7	57.2	66.8
98	51.3	50.2	55.8	62.2	70.3	78.5	81.4	82.1	77.8	71.6	61.4	50.9	66.1
99	50.0	46.8	54.5	60.1	70.8	76.5	80.3	80.9	78.6	69.9	62.9	55.3	65.6
1900	48.2	47.2	51.8	60.9	61.2	77.8	79.8	81.2	80.0	74.4	64.5	54.7	65.1
1901	51.4	49.6	53.0	60.5	69.4	75.1	80.3	82.3	78.2	70.8	58.9	50.4	65.0
02	47.6	48.7	54.5	60.8	72.2	78.0	83.2	82.2	76.9	72.9	65.6	57.6	66.7
03	49.3	51.9	58.6	63.2	69.1	77.4	80.6	83.6	78.4	70.4	60.8	48.6	66.0
04	46.2	47.2	55.0	61.1	70.5	78.2	81.9	81.9	78.9	72.0	61.6	52.7	65.6
1905	41.0	43.9*	-	-	-	-	-	-	-	-	-	-	-
	(11)	(11)	(10)	(10)	(10)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	
Mean	48.7	48.9	55.1	61.8	69.9	77.8	81.2	82.0	78.9	71.2	62.7	53.8	66.0

*Moved to new postion 32°41.0'N 79°13.5'W

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

CHARLESTON BAR LIGHTSHIP, S.C. 32°41.0'N 79°43.5'W

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1905	-	-	52.4	65.6	73.6	79.2	83.0	82.0	81.0	75.0	63.0	54.4	(67.7)
1906	53.7	50.7	56.0	62.5	70.5	79.0	81.0	81.2	79.4	71.6	62.2	56.8	67.0
07	53.9	51.6	56.9	56.0	68.9	75.9	80.3	80.6	79.4	70.5	60.9	54.3	65.8
08	-	49.5	55.6	64.7	71.9	-	-	-	77.0	69.0	62.7	58.6	(66.7)
09	54.8	53.8	57.2	63.1	71.0	78.6	80.2	81.4	77.5	69.9	65.1	55.0	67.3
1910	47.6	48.0	56.3	64.0	69.1	76.7	-	79.3	78.8	75.6	60.3	50.6	(65.6)
1911	50.5	54.1	55.4	-	70.1	79.4	82.1	79.8					
	(5)	(6)	(7)	(6)	(7)	(6)	(5)	(6)	(6)	(6)	(6)	(6)	
Mean	52.1	51.3	55.7	62.6	70.7	78.1	81.3	80.7	78.8	71.9	62.4	55.0	66.7

Readings at first high water and first low water after 7 a.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CHARLESTON LIGHTSHIP

32°40.7'N 79°42.9'W (1925-28)
32 41.0 N 79 43.0 W (1929-33)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	71.7	77.4	81.9	81.5	81.6	75.5	62.0	54.1	-
1926	48.3	51.1	52.4	59.5	68.0	75.4	79.2	82.1	81.4	73.6	60.0	54.8	65.5
27	-	-	-	-	-	-	-	-	-	-	-	-	-
28	47.6	48.3	53.2	61.6	66.2	74.3	76.8	80.3	76.5	73.7	62.5	54.4	64.6
29	52.5	51.0	57.2	66.6	71.3	76.1	79.9	80.5	77.3	70.1	65.5	54.5	66.9
1930	53.2	53.8	55.5	62.6	72.3	76.6	79.4	78.7	81.6	71.7	60.7	52.8	66.6
1931	48.0	51.4	53.4	60.8	70.1	77.2	83.2	79.2	80.3	74.1	66.1	62.8	67.2
32	60.9	60.4	57.0	63.0	71.8	77.8	81.6	79.8	78.5	72.4	63.3	55.7	68.5
33	56.6	53.8	57.8	63.7	72.4	78.8	-	-	-	-	-	-	-
	(7)	(7)	(7)	(7)	(8)	(8)	(7)	(7)	(7)	(7)	(7)	(7)	
Mean	52.4	52.8	55.2	62.5	70.5	76.7	80.3	80.3	79.6	73.0	62.9	55.6	66.8

Readings at 8 am. and 6 pm.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CHARLESTON, S.C. 32°47'N. 79°55'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	82.9	79.5	69.8	60.9	-	-
74	-	-	-	67.1	71.0	83.6	82.2	83.1	76.0	71.5	62.6	57.2	-
1875	49.1	50.0	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	56.5	61.6	70.2	79.2	84.2	84.5	80.2	71.9	63.8	53.8	(67.4)
78	51.4	52.7	60.8	68.0	74.2	78.7	83.3	83.9	72.1	70.9	60.6	51.6	67.4
79	45.0	50.0	56.4	63.7	73.5	79.9	-	81.8	75.7	72.5	60.2	57.6	(66.6)
1880	58.5	56.9	-	65.5	74.5	80.5	84.2	83.0	77.4	69.7	59.5	54.1	(68.3)
1881	-	51.3	54.2	59.2	74.8	82.0	84.2	83.3	82.5	73.4	64.9	55.3	(68.0)
82	54.4	56.3	-	-	73.6	-	82.7	83.7	82.1	72.6	61.1	50.4	(68.2)
83	50.0	55.7	55.6	64.8	72.8	81.8	85.8	84.3	78.0	73.6	62.6	55.9	68.4
84	49.1	-	58.9	64.6	-	-	82.2	-	79.6	74.9	61.9	54.8	(68.0)
1885	49.0	49.8	52.2	62.9	72.8	80.4	82.8	83.0	78.7	68.6	61.4	50.7	66.0
1886	42.6	48.4	53.2	64.3	73.6	79.9	83.7	82.4	80.4	71.7	61.6	50.4	66.0
87	46.8	55.6	56.7	62.4	75.0	80.4	83.2	83.6	76.9	69.9	58.9	52.2	66.8
88	51.6	53.7	55.8	64.8	73.1	81.3	83.2	85.0	80.4	69.7	63.4	51.6	67.8
89	-	50.4	55.2	-	73.8	79.4	82.7	81.8	-	69.1	63.4	57.2	(67.2)
1890	59.4	58.7	58.5	65.4	74.8	83.0	84.0	84.9	81.6	73.5	-	-	(70.0)
	(12)	(13)	(12)	(13)	(14)	(13)	(14)	(15)	(15)	(16)	(15)	(14)	
Mean	50.6	53.0	56.2	64.2	73.4	80.8	83.4	83.4	78.7	71.4	61.8	53.8	67.6

End of pier. April '74 Atlantic Wharf, midway between Cooper and Ashley Rivers. S.E. corner of S. Atlantic Wharf. Feb. '79, S. end, Pier 2.

1873-June 1881 incl., readings at 3 p.m.
July 1881 etc., readings between 1:40 and 2 p.m., 75th meridian time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

MARTIN'S INDUSTRY LIGHTSHIP 32°05'31"N. 80°35'07"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	-	-	73.3	64.9	56.0	-
79	50.4	51.0	56.3	63.1	71.7	78.1	82.8	82.9	78.4	74.3	64.9	60.4	67.8
1880	59.6	57.8	64.0	66.8	73.5	79.1	84.4	84.0	81.2	72.6	62.6	54.2	70.0
1881	48.7	50.8	55.6	59.9	71.4	79.4	83.4	83.1	81.4	76.5	68.5	58.4	68.1
82	56.0	57.6	60.6	66.9	71.2	78.4	81.9	82.7	80.9	73.8	63.5	52.5	68.8
83	49.7	54.4	56.9	63.5	70.5	79.2	83.6	83.9	79.1	74.7	65.1	58.5	68.2
84	51.5	54.9	58.2	64.9	72.1	77.1	82.5	82.5	81.3	77.7	66.7	60.0	69.1
1885	53.8	52.1	53.9	61.9	71.5	80.1	83.8	85.1	81.3	72.1	65.0	56.0	68.0
1886	48.6	48.9	53.5	63.2	73.0	81.3	84.2	81.7	80.2	73.9	65.4	54.4	67.4
87	48.6	53.6	57.0	61.8	72.9	79.0	82.9	83.3	77.6	72.0	62.8	54.8	67.2
88	53.5	53.9	55.4	63.7	70.9	-	82.3	84.0	80.7	71.0	65.4	53.1	(67.7)
89	52.2	51.2	53.5	61.7	69.5	76.1	81.0	81.0	79.3	71.8	66.5	58.8	66.9
1890	59.2	59.8	59.0	65.2	73.4	80.4	83.5	82.0	81.0	74.5	65.2	57.8	70.1
1891	52.4	56.1	57.0	63.8	71.1	79.4	81.7	83.3	80.1	71.1	61.7	55.9	67.8
92	51.4	51.6	54.4	63.2	71.5	78.8	80.9	82.5	79.3	72.2	63.9	58.1	67.3
93	48.4	51.1	57.0	64.2	71.6	79.6	83.3	82.2	80.7	73.7	63.6	56.8	67.9
94	55.7	54.4	58.8	65.3	74.1	78.0	81.2	83.0	82.1	73.2	64.0	59.3	69.1
1895	51.9	47.6	54.2	62.4	72.0	-	-	-	81.1	71.6	62.4	55.7	(66.9)
1896	51.8	53.6	55.7	63.7	74.4	80.4	82.9	81.9	80.5	70.7	66.4	55.3	68.1
97	51.9	-	58.4	64.6	71.1	79.7	82.9	82.8	78.0	71.3	65.5	57.8	(68.0)
98	53.5	52.1	55.9	63.0	71.7	79.9	82.9	83.3	78.7	74.4	62.9	53.8	67.7
99	50.7	50.6	55.4	61.4	72.2	77.8	80.5	82.2	80.6	70.4	65.2	57.7	67.0
1900	50.7	50.0	52.9	61.5	71.0	77.9	81.3	82.1	82.4	76.3	67.0	56.7	67.5
1901	52.7	50.6	53.2	60.4	-	75.8	82.0	81.7	79.6	71.1	-	-	(66.6)
02	-	-	-	-	-	-	-	-	-	-	-	-	-
03	-	-	-	-	-	-	-	-	-	-	-	-	-
04	-	-	-	-	-	-	-	-	-	-	-	-	-
1905	-	-	52.9	64.6	73.0	78.4	82.9	82.2	80.9	-	62.8	53.9	(67.5)
1906	52.1	51.0	55.4	63.1	71.1	79.1	83.0	83.9	82.0	72.5	62.4	57.9	67.8
07	55.6	52.6	58.3	59.9	70.0	77.7	83.0	82.9	81.8	71.9	62.4	56.4	67.7
08	52.7	50.4	56.8	66.5	73.0	81.2	82.8	83.7	78.6	70.7	63.4	59.7	68.3
09	56.2	54.5	59.2	63.9	71.5	79.9	82.1	-	-	-	-	57.5	(68.8)
1910	49.3	49.7	57.0	64.3	70.7	78.4	81.4	82.0	80.6	76.7	62.8	53.0	67.2
1911	51.3	55.0	57.1	63.2	71.0	80.0	83.4	83.5	82.4	78.2	64.0	-	(68.8)
	(29)	(28)	(30)	(30)	(29)	(28)	(29)	(28)	(29)	(29)	(29)	(29)	
Mean	52.4	52.7	56.4	63.4	71.8	78.9	82.6	82.8	80.4	73.2	64.4	56.6	68.0

Readings at first high water and first low water after 7 a.m.

Source - USCFF, USBF

Monthly and Annual Mean Surface Water Temperatures, °F

SAVANNAH LIGHTSHIP 31° 55.5'N. 80° 39.6'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	77.9	80.9	83.0	82.1	72.1	65.9	55.7	-
48	51.5	49.4	55.9	66.0	74.0	79.4	83.2	83.0	80.2	71.1	67.3	61.8	68.6
49	57.6	59.6	60.3	65.5	73.7	78.1	82.7	84.2	80.8	70.9	64.8	53.5	69.3
1950	54.2	57.5	54.2	60.3	72.7	78.6	79.0	82.8	81.1	73.9	67.8	54.0	68.0
1951	51.4	48.8	54.2	63.7	70.3	78.5	83.4	84.6	82.4	74.6	64.5	56.9	67.8
52	54.6	52.3	54.6	64.8	72.4	81.4	83.7	84.4	79.5	71.5	65.1	61.2	68.8
53	53.5	55.5	60.0	-	-	-	82.5	82.7	80.2	-	-	-	-
54	-	-	-	66.8	73.1	78.5	-	-	-	-	-	-	-
1955	52.5	-	-	-	-	-	-	-	79.3	-	-	-	-
	(7)	(6)	(6)	(6)	(6)	(7)	(7)	(7)	(8)	(6)	(6)	(6)	
Mean	53.6	53.9	56.5	64.5	72.7	78.9	82.2	83.5	80.7	72.4	65.9	57.2	68.5

Readings at 0130, 0730, 1330 and 1930 EST.

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

SAVANNAH, GEORGIA 32°05'N. 81°05'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	77.2	68.1	55.2	51.7	-
74	49.7	52.4	59.8	66.3	69.7	82.6	81.9	82.7	76.6	68.1	61.2	51.9	66.9
1875	48.5	49.2	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	57.5	62.5	71.1	80.4	84.7	84.4	79.7	71.1	61.0	51.3	(67.1)
78	48.4	51.8	61.3	69.3	77.0	81.3	85.7	86.4	79.2	71.3	-	49.6	(68.4)
79	46.8	52.4	61.0	65.3	74.8	-	85.1	80.1	76.0	69.5	56.2	51.8	(66.6)
1880	56.1	53.8	62.5	64.9	73.2	-	85.9	82.6	78.8	69.4	-	-	(68.1)
1881	45.4	51.3	55.4	60.8	-	80.6	84.6	78.9	76.5	75.1	63.3	54.9	(66.7)
82	54.5	55.2	62.9	68.8	73.7	-	84.7	83.7	77.6	71.7	60.5	47.4	(68.4)
83	48.2	58.0	55.7	65.1	72.8	81.3	-	85.0	78.7	74.2	62.8	-	(68.0)
84	47.4	57.3	58.1	-	75.9	76.5	80.5	83.3	80.3	75.6	61.6	-	(67.7)
1885	50.3	46.4	52.9	65.9	75.0	79.9	84.9	84.3	78.2	65.7	57.5	48.7	65.8
1886	-	48.0	54.7	63.2	72.7	76.9	78.3	81.4	79.9	70.9	58.8	47.0	(65.1)
87	45.3	56.8	57.0	-	-	-	-	-	-	-	-	-	-
	(11)	(12)	(12)	(10)	(10)	(8)	(10)	(11)	(12)	(12)	(10)	(9)	
Mean	49.1	52.7	58.2	65.2	73.6	79.9	83.6	83.0	78.2	70.9	59.8	50.5	67.0

Exchange Wharf, 1873-75
Drayton St. Wharf, 1877-87

1873-Oct. 1879 incl., readings at 3 p.m.
Nov. 1879-June 1881 incl., readings at 1 p.m.
July 1881 etc., readings at 1:40 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

BRUNSWICK LIGHTSHIP STATION, GA. 31°00.2'N. 81°09'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	-	-	-	82.2	77.0	64.7	56.2	-
1926	51.5	54.1	55.3	61.8	69.4	76.2	79.0	79.4	81.4	77.3	65.0	60.9	67.6
27	-	60.3	61.9	68.4	73.1	80.3	82.0	80.1	81.3	74.8	67.8	60.7	(70.3)
28	53.3	53.5	56.6	65.3	69.6	75.6	75.4	80.3	79.2	75.9	66.6	57.8*	67.4
	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(4)	(4)	(4)	(4)	
Mean	52.4	56.0	57.9	65.2	70.7	77.4	78.8	79.9	81.0	76.2	66.0	58.9	68.4

* Moved to 30°30.0'N 81°18'W and renamed St. Johns Lightship

Readings at 8 am and 6 pm

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

ST. JOHNS LIGHTSHIP, FLORIDA 30°30.0'N. 81°18'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1929	-	55.5	61.1	69.0	74.5	78.8	82.3	79.8	80.5	73.6	70.8	60.3*	-

*Moved to 30°23.0'N. 81°18'W

Off St. Johns Bar

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

ST. JOHNS LIGHTSHIP, ST. JOHNS BAR, FLORIDA 30° 23.0'N. 81° 18'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	56.2	56.5	60.0	67.0	75.4	76.2	77.4	78.6	79.9	73.3	63.3	55.9	(68.3)
1931	52.7	54.4	56.7	63.6	71.4	77.9	81.8	77.7	80.6	76.0	69.7	67.6	(69.2)
32	66.1	65.2	61.1	66.5	74.0	79.1	79.6	78.4	80.7	75.4	68.0	59.8	(71.2)
33	59.6	58.8	61.7	67.6	75.8	78.9	81.6	82.7	83.6	76.4	-	65.5	(71.7)
34	60.7	56.1	56.5	64.9	73.7	78.3	-	-	-	-	-	-	-
	(5)	(5)	(5)	(5)	(5)	(5)	(4)	(4)	(4)	(4)	(3)	(4)	
Mean	59.1	58.2	59.2	65.9	74.1	78.1	80.1	79.4	81.2	75.3	67.0	62.2	70.0

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

ST. JOHNS LIGHTSHIP 30° 23.5'N. 81° 18.0'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1947	-	-	-	-	-	78.3	79.4	82.1	82.4	74.6	69.8	59.4	-
48	55.6	52.8	59.3	68.7	76.1	80.5	82.4	80.5	81.0	73.4	70.7	66.4	70.6
49	63.0	62.7	63.3	68.1	74.0	78.9	83.0	81.1	80.8	77.1	68.6	61.2	71.8
1950	59.4	62.2	62.0	65.8	74.6	80.4	77.0	78.9	79.2	74.6	68.2	55.1	69.8
1951	55.8	56.9	61.7	66.5	73.6	79.3	81.7	81.8	81.5	76.8	67.1	59.5	70.2
52	59.2	58.8	61.2	66.2	73.5	79.7	76.9	76.9	79.0	73.5	65.9	59.7	69.2
53	58.4	-	63.8	65.6	71.7	79.0	82.5	82.6	80.4	75.3	66.3	61.3	(70.5)
54	58.7	58.7	58.7	68.9	73.7	78.1	81.9	82.6	83.1	-	-	-	-
	(7)	(6)	(7)	(7)	(7)	(8)	(8)	(8)	(8)	(7)	(7)	(7)	
Mean	58.6	58.7	61.4	67.1	73.9	79.3	80.6	80.8	80.9	75.0	68.1	60.4	70.4

Readings at 0130, 0730, 1330 and 1930 EST

Source - NWRC

Monthly and Annual Mean Surface Water Temperatures, °F

JACKSONVILLE, FLORIDA 30°19'N. 81°38'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	84.1	81.7	73.2	63.5	60.3	-
74	55.0	61.1	68.4	74.2	78.8	85.6	84.3	85.5	81.4	75.0	67.7	62.2	73.3
1875	59.4	No records											
1876	No records												
77	-	58.4	62.6	65.7	71.2	79.7	82.5	81.7	80.1	70.8	63.5	57.4	-
78	54.8	58.3	66.2	73.8	80.6	84.2	87.2	87.0	82.0	74.4	66.1	57.1	72.6
79	54.1	58.4	66.0	69.8	77.3	82.8	86.7	85.7	80.3	77.0	68.4	64.7	72.6
1880	65.0	62.8	71.6	73.4	77.6	83.8	87.4	81.6	73.5	-	-	-	-
1881	54.0	58.8	61.8	66.9	80.2	85.5	87.1	84.3	83.9	79.0	70.6	61.5	72.8
82	62.2	64.2	-	-	77.8	-	85.7	86.3	83.0	76.3	65.9	55.9	-
83	56.8	67.3	63.4	72.7	77.8	84.1	88.8	86.9	81.8	78.9	68.5	-	-
84	54.9	63.9	67.1	-	80.8	80.0	85.8	85.8	82.6	77.5	68.3	-	-
1885	58.7	57.3	60.8	71.5	77.6	-	-	85.7	83.2	73.4	64.8	55.6	-
1886	50.7	54.1	60.1	69.4	78.3	84.9	83.7	85.0	82.2	74.7	65.6	55.2	70.3
87	52.0	66.3	63.4	-	-	-	-	-	-	-	-	-	-
	(12)	(12)	(11)	(9)	(11)	(9)	(10)	(12)	(12)	(11)	(11)	(9)	
Mean	56.5	60.9	64.7	70.8	78.0	83.4	85.9	85.0	81.3	75.5	66.6	58.9	72.3

Atlantic Dock, Pine St., Aug. 1873-Feb. 1877; East Side, Pine St., Mar. 1877-Dec. 1877; Foot of Pine St., Jan. 1878-Aug. 1878; Roots Wharf, Sept. 1878-July 1880; Astors Wharf, Aug. 1880-Mar. 1887.

1873-Oct. 1879 incl., readings at 3 p.m.
Nov. 1879-June 1881 incl., readings at 1 p.m.
July 1881 etc., readings at 1:40 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

FOWEY ROCKS LIGHTHOUSE, FLORIDA 25°35'25"N. 80°05'41"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1879	-	-	73.5	80.2	81.1	81.2	76.6	76.9	76.3	-	-	-	-
1880	-	74.6	74.4	75.9	77.7	81.7	84.4	84.0	83.2	81.2	79.0	75.2	-
1881	73.2	74.1	72.2	74.6	79.3	82.9	84.9	84.2	83.4	80.7	78.4	76.3	78.7
82	74.0	73.9	75.4	77.9	79.2	82.9	84.6	84.3	83.4	81.6	76.8	74.7	79.0
83	74.5	75.7	74.2	77.4	78.5	82.3	84.2	85.0	84.2	81.9	77.8	75.7	79.3
84	73.5	74.6	74.4	75.8	78.5	80.6	83.6	84.2	84.0	80.3	77.6	75.3	78.5
1885	74.9	71.7	71.3	76.6	80.0	81.4	84.4	86.0	85.3	80.8	75.2	72.1	78.3
1886	70.7	70.6	72.8	74.9	79.6	83.0	83.7	83.9	83.7	80.7	76.5	72.4	77.7
87	71.2	75.6	73.3	75.7	78.2	81.2	84.7	85.5	83.4	82.2	77.1	75.3	78.6
88	74.9	73.8	72.9	75.5	75.9	81.1	86.2	85.8	82.1	79.4	77.8	73.0	78.2
89	73.0	72.2	73.1	74.5	78.9	82.1	84.0	84.2	82.5	80.1	78.2	75.4	78.2
1890	74.6	75.5	74.0	75.8	79.3	83.1	84.0	84.9	84.3	82.0	77.8	73.4	79.0
1891	-	75.8	74.8	76.7	78.4	81.7	85.0	84.6	83.5	78.7	75.8	75.4	-
92	73.4	72.8	73.1	75.6	78.2	79.6	83.2	84.1	83.8	80.1	75.0	74.7	77.8
93	71.4	74.6	74.5	75.9	78.3	82.8	85.3	85.2	83.8	80.2	76.6	74.5	78.6
94	74.0	73.8	73.7	75.2	76.7	80.0	83.2	85.8	84.5	78.8	75.2	73.6	77.9
1895	73.1	68.4	73.3	74.8	78.2	79.6	82.9	83.7	84.9	79.0	75.8	71.2	77.1
1896	69.3	70.2	72.2	75.1	79.8	82.9	85.9	86.5	86.0	81.6	81.9	71.2	78.6
97	69.6	71.6	73.6	73.2	75.8	82.5	85.2	87.2	82.4	78.4	75.5	74.0	77.4
98	71.5	70.8	72.4	77.3	77.4	81.6	84.4	85.1	86.1	81.4	74.2	64.9	77.2
99	71.4	68.1	72.9	76.8	80.4	82.1	82.9	83.8	82.0	80.2	77.6	71.7	77.5
1900	67.4	-	-	72.2	74.7	77.3	82.0	81.3	81.0	78.7	73.9	71.0	-
1901	70.1	67.2	70.2	75.6	74.5	75.0	75.0	82.5	81.3	80.1	71.2	67.7	74.2
02	64.6	69.0	70.3	72.0	74.2	74.4	76.1	74.4	74.6	73.5	76.3	73.9	72.8
03	70.9	76.3	72.0	74.8	73.3	76.0	75.4	75.7	75.8	73.5	71.5	70.8	73.8
04	69.4	69.6	70.0	71.8	71.2	73.0	81.0	81.8	81.8	78.1	76.7	72.4	74.7
1905	69.8	76.0	76.8	78.0	82.0	83.0	85.5	84.9	83.0	79.9	77.4	72.7	79.1
1906	70.0	70.6	73.8	77.6	79.0	83.5	84.2	84.1	85.4	81.1	77.6	72.0	78.2
07	72.7	71.3	77.2	73.5	82.3	81.3	82.3	85.3	83.8	81.1	77.0	76.0	78.6
08	71.4	71.6	76.5	77.0	83.6	84.3	86.8	85.0	83.6	79.2	79.8	77.6	79.7
09	76.8	71.8	79.4	82.3	83.9	82.7	84.7	84.9	82.7	81.5	75.9	70.8	79.8
1910	71.0	70.2	72.8	75.0	76.2	83.9	83.6	85.5	82.6	79.9	73.7	69.6	77.0
1911	72.7	74.5	72.8	76.9	77.2	82.6	82.8	83.8	83.3	82.6	80.2	77.0	78.9
12	75.9	71.8	74.9	78.6	80.2	81.8	82.6	83.2	84.1	84.2	78.1	75.8	79.3
13	73.1	74.5	-	-	80.2	83.4	85.4	85.1	82.4	81.5	79.6	74.2	-
14	71.4	72.6	73.3	77.9	79.3	83.2	84.3	84.0	82.6	81.1	73.3	76.5	78.3
1915	73.0	71.8	72.0	72.5	80.5	81.6	83.2	83.5	82.8	81.9	78.2	71.1	77.7
1916	73.6	73.1	74.0	73.8	76.3	82.5	83.1	83.3	82.0	79.4	75.4	72.4	77.4
17	73.1	70.0	73.0	74.0	76.7	81.2	83.2	82.8	82.7	80.9	74.6	69.2	76.8
18	70.7	73.1	75.4	76.9	79.6	81.5	83.3	83.8	82.5	81.3	77.2	73.1	78.2
19	69.4	71.6	76.8	74.5	79.4	81.8	82.7	84.0	82.7	82.9	77.0	75.5	78.2
1920	72.3	71.0	73.7	79.4	79.2	80.8	83.7	82.6	82.0	78.3	76.1	74.2	77.8

Monthly and Annual Mean Surface Water Temperatures, °F

FOWEY ROCKS LIGHTHOUSE (continued)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1921	72.4	73.8	73.7	75.4	78.3	81.3	83.6	81.3	76.2	78.3	76.4	74.1	77.1
22	73.7	73.3	74.5	77.3	80.1	82.5	83.9	82.7	81.0	80.1	76.4	75.4	78.4
23	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-
1925	-	-	-	-	78.6	81.4	83.9	85.3	84.2	82.2	77.9	73.8	-
1926	72.3	70.0	70.4	75.1	77.1	78.9	82.9	83.4	82.6	80.2	76.3	72.4	76.8
27	-	-	-	-	-	-	-	-	-	-	-	-	-
28	70.7	70.8	71.8	72.3	74.1	80.2	81.8	82.2	-	79.8	75.3	73.0	-
29	71.7	72.3	73.6	75.3	77.7	80.2	83.1	84.1	84.0	79.5	77.9	75.4	77.9
1930	75.5	74.4	74.4	76.0	80.1	81.3	84.0	85.4	84.2	81.3	77.3	74.3	79.0
1931	71.7	72.4	72.0	75.4	78.9	82.1	85.0	85.8	84.9	82.5	78.9	78.5	79.0
32	76.1	76.7	75.2	76.2	79.5	82.8	84.6	85.0	80.2	78.3	74.6	72.4	78.6
33	71.5	75.4	72.5	77.5	80.7	82.3	84.1	85.1	84.4	81.2	78.4	76.0	79.1
34	74.7	71.9	74.7	76.9	79.1	81.8	85.2	85.6	84.1	82.6	77.4	75.9	79.2
	(49)	(50)	(50)	(51)	(53)	(53)	(53)	(53)	(52)	(52)	(52)	(52)	
Mean	72.2	72.5	73.6	75.8	78.4	81.2	83.3	83.8	82.8	80.3	76.7	73.6	77.8

Readings at first high water and first low water after 7 a.m., through 1922.
1925-1934, readings at 8 a.m. and 6 p.m.

Source - USCFF, USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CARYSFORT REEF LIGHTHOUSE 25° 13'15"N. 80° 12'42"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	-	-	79.7	76.7	73.1	-
79	69.7	72.7	73.8	73.0	79.4	81.8	83.8	85.0	84.6	81.7	79.0	77.0	78.4
1880	76.2	75.7	77.1	78.4	79.8	82.5	84.6	84.6	84.1	82.0	79.9	76.7	80.1
1881	75.3	74.9	73.3	75.8	79.6	84.0	-	-	-	80.1	79.4	76.1	(79.3)
82	77.4	75.1	75.7	76.2	78.9	82.0	83.6	84.0	83.8	81.4	76.3	74.6	79.1
83	73.5	73.3	-	76.8	80.0	83.3	84.5	84.9	84.1	83.2	81.0	78.7	(78.8)
84	74.1	76.4	76.9	76.9	80.3	83.2	84.8	84.3	84.0	81.5	79.1	76.3	79.8
1885	74.9	72.0	73.3	76.5	80.1	81.8	84.7	86.4	85.8	81.4	76.3	71.8	78.8
1886	70.6	70.9	72.8	75.2	79.6	82.6	83.6	83.8	82.9	81.3	75.6	73.2	77.7
87	71.9	74.8	73.0	75.1	78.5	80.7	84.7	85.6	84.2	81.5	77.0	75.3	78.5
88	75.4	74.4	73.6	76.8	78.4	81.8	84.6	85.9	84.7	81.2	78.7	74.5	79.2
89	72.5	72.8	74.1	75.0	79.1	82.4	83.0	83.5	82.4	79.2	79.9	73.5	78.1
1890	73.8	74.3	-	-	-	-	-	-	-	-	-	-	-
1891	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	83.0	82.8	80.0	75.3	73.6	-
93	-	74.0	72.7	75.0	79.1	81.7	84.0	84.6	83.6	79.5	77.2	75.2	(78.3)
94	72.5	73.3	73.2	74.1	76.1	79.9	82.9	85.4	84.0	78.9	77.1	74.8	77.7
1895	71.9	70.4	72.1	73.5	78.5	81.8	85.5	84.3	84.2	81.5	76.8	73.1	77.8
1896	72.2	72.3	72.0	76.4	79.0	82.0	84.0	84.8	83.4	81.2	79.2	75.0	78.4
97	73.3	73.0	75.1	76.4	77.4	82.4	84.9	85.5	83.9	81.8	77.0	76.5	78.9
98	74.6	72.0	72.8	75.5	77.4	81.5	84.4	85.2	85.4	81.2	76.9	73.5	78.4
99	70.1	76.2	76.5	76.1	78.6	80.0	84.0	85.2	84.7	81.0	76.0	74.8	78.6
1900	73.2	-	-	-	-	-	-	-	-	-	-	-	-
	(19)	(19)	(17)	(18)	(18)	(18)	(17)	(18)	(18)	(20)	(20)	(20)	
Mean	73.3	73.6	74.0	75.7	78.9	82.0	84.2	84.8	84.0	81.0	77.7	74.9	78.7

Readings at first high water and first low water after 7 a.m.

Source - USCFF

Monthly And Annual Mean Surface Water Temperatures, °F

SOMBRERO KEY, FLORIDA 24°37.5'N. 81°07'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	82.4	84.5	86.1	84.3	82.9	78.4	74.7	-
1926	73.0	70.5	70.3	76.8	77.9	82.3	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-
28	72.4	72.2	73.8	74.8	76.7	82.8	84.4	84.1	83.2	81.2	74.6	71.7	77.6
29	70.9	71.9	73.4	75.4	77.4	79.6	81.2	81.5	81.0	-	-	-	-
1930	71.4	73.1	73.9	75.2	81.0	82.0	85.6	85.8	84.1	81.5	76.7	72.1	78.5
1931	69.4	70.1	68.1	74.6	79.3	82.3	84.9	86.0	83.2	81.5	76.5	77.7	77.8
32	75.5	76.2	73.4	75.5	79.2	83.3	86.1	86.1	84.7	82.6	77.1	75.7	79.6
33	74.5	74.5	73.8	77.8	80.3	81.9	84.3	84.2	83.9	81.4	76.9	75.0	79.0
34	74.1	72.0	74.2	77.2	80.4	81.8	85.0	85.2	84.4	82.7	77.7	75.1	79.2
	(8)	(8)	(8)	(8)	(8)	(9)	(8)	(8)	(8)	(7)	(7)	(7)	
Mean	72.6	72.6	72.6	75.9	79.0	82.0	84.5	84.9	83.6	82.0	76.8	74.6	78.4

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

KEY WEST, FLORIDA 24°33'N. 81°48'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1874	-	-	-	-	-	-	-	85.6	84.4	79.4	75.6	72.3	-
1875	75.3	74.4	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	70.9	75.3	80.7	86.7	87.2	88.8	87.8	82.2	76.4	68.8	(79.2)
78	66.7	70.5	74.0	79.8	83.4	87.5	88.0	88.6	85.0	80.8	75.2	68.8	79.0
79	68.8	71.8	75.9	77.7	83.8	84.3	88.2	87.7	85.7	81.6	75.4	75.9	79.7
1880	74.1	75.8	78.8	79.5	80.7	85.8	88.0	-	-	-	-	72.0	(80.5)
1881	72.1	72.3	72.8	76.1	82.3	86.3	88.1	87.3	85.6	81.5	77.7	74.3	79.7
82	72.7	74.9	-	-	83.0	-	87.6	-	-	82.8	76.3	72.3	(80.2)
83	73.9	77.0	75.7	82.9	82.4	86.3	88.3	87.9	86.8	83.1	77.1	74.4	81.3
84	69.7	75.2	77.8	79.9	84.1	84.6	88.1	-	-	80.3	77.0	76.0	(80.5)
1885	74.2	71.3	75.3	80.6	84.8	86.1	88.7	88.4	87.9	81.2	75.2	67.6	80.1
1886	66.7	69.3	75.2	-	82.5	86.9	87.7	87.0	85.6	81.2	76.4	70.7	(79.0)
87	69.0	76.7	74.4	78.6	-	83.6	88.0	87.8	84.9	81.8	75.2	73.6	(79.7)
88	73.8	75.3	-	79.1	82.0	85.6	-	87.4	85.0	80.2	77.7	68.5	(79.8)
89	72.0	71.6	72.6	77.6	82.0	85.1	87.1	84.6	85.1	79.8	77.7	72.2	79.0
1890	74.0	74.4	73.7	78.5	82.7	86.2	87.1	86.3	85.8	83.4	-	-	(80.0)
	(14)	(14)	(12)	(12)	(13)	(13)	(13)	(12)	(12)	(14)	(13)	(14)	
Mean	71.6	73.6	74.8	78.8	82.6	85.8	87.8	87.3	85.8	81.4	76.4	72.0	79.8

Walls Wharf (Gulf), 1874-81; Tift's Wharf, 1882-Feb. 1888; Philbrick's Wharf, Apr. 1888.

1874-Oct. 1879 incl., readings at 3 p.m.
Nov. 1879-June 1881 incl., readings at 1 p.m.
July 1881 etc., readings at 1:40 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

DRY TORTUGAS, FLORIDA 24°38'04"N. 82°55'42"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1878	-	-	-	-	-	-	-	-	83.7	79.4	74.7	-	-
79	-	-	-	-	-	-	87.0	86.8	82.8	80.6	75.8	73.9	-
1880	73.9	74.4	75.0	74.2	74.6	81.0	86.3	85.0	85.6	81.1	77.4	73.4	78.5
1881	-	72.4	72.0	71.4	78.7	78.2	85.2	84.8	84.0	82.5	81.2	77.4	(78.3)
82	74.2	73.6	77.3	77.2	75.3	81.8	84.0	83.3	83.2	80.8	76.2	70.9	78.2
83	73.2	73.1	73.2	74.9	79.0	81.6	83.4	84.2	83.9	82.4	78.8	77.0	78.7
84	72.5	73.4	75.6	-	-	-	-	-	-	-	75.0	76.9	-
1885	74.4	73.9	73.8	75.3	77.6	80.6	82.8	84.4	82.9	77.4	73.9	71.8	77.4
1886	72.3	71.3	70.7	73.0	78.0	80.5	82.6	84.0	82.5	81.9	79.9	73.4	77.5
87	-	-	73.5	67.9	78.7	80.4	83.8	85.0	84.3	80.1	-	73.8	-
88	-	71.2	-	-	79.3	81.2	83.1	85.7	84.5	81.3	79.1	73.6	-
89	73.8	73.3	71.2	71.4	76.2	82.2	85.3	84.0	84.2	80.3	78.9	73.7	77.9
1890	75.9	75.2	74.2	75.4	79.7	80.4	84.6	84.6	84.4	83.0	78.1	73.3	79.1
1891	70.1	75.5	75.0	73.6	76.2	80.1	85.2	85.2	84.2	78.3	74.4	74.5	77.9
92	73.6	73.3	73.2	76.6	79.3	81.3	83.1	85.9	85.3	80.2	73.8	71.8	78.1
93	68.0	73.0	75.4	77.2	80.9	83.3	85.8	86.5	85.3	82.0	78.2	74.0	79.1
94	73.2	72.4	74.3	77.3	79.4	81.5	83.8	85.4	84.2	78.6	73.5	72.5	78.0
1895	71.4	67.8	73.4	75.0	80.1	81.0	84.2	84.9	84.6	80.6	77.0	73.1	77.8
1896	70.2	70.2	70.4	75.2	79.4	82.2	82.7	85.8	84.5	81.1	78.7	74.0	77.9
97	70.6	71.8	75.1	76.4	78.2	82.8	84.7	85.5	83.3	80.6	76.8	73.7	78.3
98	71.7	71.5	75.0	76.8	79.7	83.2	84.7	85.9	84.8	81.6	77.1	72.5	78.7
99	73.3	70.1	71.6	75.4	80.7	83.6	84.3	85.8	85.4	81.7	76.4	73.3	78.5
1900	69.2	68.2	72.4	74.8	77.1	81.8	83.6	84.6	83.5	82.8	78.2	73.5	77.5
1901	71.4	71.9	70.8	74.1	79.4	83.6	83.8	84.1	84.1	81.4	75.7	71.2	77.6
02	67.4	69.6	71.8	73.9	77.7	81.4	84.5	85.5	84.5	82.6	76.5	72.6	77.3
03	69.4	72.8	75.3	-	78.1	82.4	83.9	86.1	84.8	80.0	76.2	71.2	-
04	70.1	72.3	74.8	77.4	78.0	82.0	82.6	83.7	84.4	81.0	74.6	72.9	77.8
1905	68.6	72.2	73.8	74.4	79.5	82.8	84.5	85.5	84.8	82.4	78.4	-	-
1906	69.0	70.0	71.5	74.3	82.4	82.8	85.2	85.0	84.8	80.2	76.4	72.3	77.8
07	71.0	71.4	-	-	-	-	-	-	-	-	-	-	-
	(25)	(27)	(26)	(24)	(26)	(26)	(27)	(27)	(28)	(28)	(28)	(27)	
Mean	71.5	72.1	73.5	74.7	78.6	81.7	84.2	85.1	84.2	80.9	76.8	73.4	78.0

Loggerhead Key, 60 ft. off beach.

Readings at first high water and first low water after 7 a.m.
Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

DRY TORTUGAS LIGHT STATION, FLORIDA 24°38'04"N. 82°55'42"W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	81.9	83.6	84.7	84.0	81.0	76.8	73.0	-
1926	70.0	67.9	67.5	71.7	76.4	78.9	80.1	83.1	83.4	81.2	76.2	74.3	75.9
27	-	-	-	-	-	-	-	-	-	-	-	-	-
28	71.5	-	73.6	74.2	76.2	83.5	84.6	84.4	85.0	83.2	76.5	72.2	(78.1)
29	71.7	73.7	73.9	79.6	80.6	81.7	83.0	-	-	76.9	77.0	-	-
1930	70.1	72.1	74.2	74.5	80.7	82.1	85.2	85.2	83.9	81.0	74.7	71.8	78.0
1931	66.0	69.5	71.8	73.2	79.0	83.2	84.7	84.6	84.4	81.8	76.6	78.8	77.8
32	74.3	77.8	74.5	74.8	80.3	83.2	85.2	85.2	84.8	84.7	75.7	74.4	79.6
33	76.2	73.3	74.5	80.1	80.4	82.8	85.8	85.9	85.1	82.5	78.1	72.5	79.8
34	72.2	69.8	72.6	75.2	79.8	80.0	85.0	84.3	83.4	81.6	74.4	73.4	77.6
	(8)	(7)	(8)	(8)	(8)	(9)	(9)	(8)	(8)	(9)	(9)	(8)	
Mean	71.5	72.0	72.8	75.4	79.2	81.9	84.1	84.7	84.2	81.5	76.2	73.8	78.1

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

PUNTA RASSA, FLORIDA 26°29'N. 82°01'W.

Year	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	-	-	70.8	70.1	-
74	66.2	-	76.8	79.3	82.5	86.9	-	-	-	-	74.2	69.8	-
1875	75.1	70.3	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	75.4	77.7	82.8	84.0	82.3	85.6	81.8	-	-	-
78	62.4	64.0	72.5	78.4	83.9	87.6	85.8	88.5	84.6	-	72.8	64.8	-
79	64.2	67.1	73.5	75.3	82.1	85.0	87.4	87.0	84.6	79.8	-	-	-
1880	70.2	-	76.4	-	80.2	86.0	88.1	84.7	84.7	78.2	76.6	67.4	-
1881	66.2	65.8	68.7	73.9	81.3	86.8	89.2	86.8	86.3	81.4	75.6	70.3	77.7
82	70.5	72.0	-	-	82.7	-	87.7	87.6	-	82.3	72.5	65.8	-
83	68.8	75.6	-	81.3	82.4	-	-	-	-	-	-	-	-
	(8)	(6)	(5)	(6)	(8)	(6)	(6)	(6)	(5)	(5)	(6)	(6)	
Mean	68.0	69.1	73.6	77.3	81.6	85.8	87.0	86.2	85.2	80.7	73.8	68.0	78.0

End of Wharf - 300 yards from station
" " 175 " " " July 1877
" " 300 " " " Oct. 1877
" " 335 " " " Jan. 1878

1873-Oct. 1879 incl., readings at 3 p.m.
1880-June 1881 incl., readings at 1 p.m.
July 1881 etc., readings at 1:40 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

EGMONT KEY 27°36'N. 82°46'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1925	-	-	-	-	-	-	-	83.4	-	79.1	68.6	61.4	-
1926	59.0	62.4	63.5	70.6	74.5	81.5	84.8	-	-	-	66.5	65.9	(72.9)
27	-	-	-	-	-	-	-	-	-	-	-	-	-
28	56.3	61.1	67.2	72.4	76.0	83.8	86.0	84.1	82.9	80.4	68.5	62.5	73.4
29	63.0	65.8	71.0	76.2	81.3	83.0	83.8	86.1	83.3	77.3	-	62.0	(75.1)
1930	61.5	63.0	65.1	70.7	79.8	80.0	86.1	86.3	83.6	75.5	68.0	59.6	73.3
1931	56.4	59.3	60.4	68.2	77.0	81.8	85.8	86.3	83.9	77.3	70.0	72.8	73.3
32	67.4	72.0	64.9	69.9	77.4	82.3	87.5	86.3	82.2	78.2	68.2	63.3	75.0
33	63.6	64.7	64.5	72.4	78.8	81.4	82.6	84.0	83.5	77.2	67.0	65.8	73.8
34	61.7	60.2	63.5	71.3	76.8	80.3	83.2	84.2	81.2	78.3	66.9	62.2	72.5
	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(7)	(8)	(8)	(9)	
Mean	61.1	63.6	65.0	71.5	77.7	81.8	85.0	85.1	82.9	77.9	68.0	63.9	73.6

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

ANCLOTE KEYS, FLORIDA 28° 10' N. 82° 51' W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1904	-	-	-	-	-	-	-	82.9	82.9	76.8	-	59.8	-
05	50.4	55.2	67.0	71.2	83.6	86.0	85.8	83.8	84.3	76.4	66.0	59.0	72.4
1906	53.2	57.6	66.3	71.4	-	86.4	86.7	84.5	81.3	-	-	-	-
	(1)	(2)	(2)	(2)	(1)	(2)	(2)	(3)	(3)	(2)	(1)	(2)	
Mean	53.2	56.4	66.6	71.3	83.6	86.2	86.2	83.7	82.8	76.6	66.0	59.4	72.7

Readings at first high water and first low water after 7 a.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CEDAR KEYS, FLORIDA 29°08'N. 83°02'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1879	-	-	-	-	-	-	-	-	-	-	-	67.5	-
80	65.0	63.4	71.3	74.2	78.5	82.5	85.3	83.5	81.6	72.7	-	59.4	(73.8)
1881	-	57.5	59.2	66.1	78.6	82.6	86.3	84.7	83.8	78.9	70.9	63.2	(72.7)
82	64.4	-	-	-	77.8	-	83.9	84.8	83.4	78.4	66.6	59.2	-
83	60.7	70.9	66.0	75.9	79.4	86.8	-	89.1	85.4	81.1	70.7	66.7	(76.5)
84	56.1	67.1	69.9	-	-	81.9	-	-	-	76.7	-	-	-
1885	58.4	58.0	63.1	73.0	78.6	85.3	86.6	86.0	84.9	73.8	65.9	54.2	72.3
1886	51.5	56.3	59.7	67.9	75.9	83.4	83.4	84.5	83.7	78.1	65.3	57.5	70.6
87	54.4	70.2	65.0	76.2	79.3	81.9	-	-	81.6	76.1	76.0	-	-
88	-	-	-	-	-	-	87.5	86.8	81.1	74.7	67.6	57.1	-
89	59.1	58.3	64.2	73.2	79.9	84.3	85.7	83.0	84.3	74.6	68.5	68.9	73.7
1890	70.9	67.6	64.3	-	-	-	-	-	-	-	-	-	-
	(9)	(9)	(9)	(7)	(8)	(8)	(7)	(8)	(9)	(10)	(8)	(9)	
Mean	60.1	63.2	64.7	72.4	78.5	83.6	85.5	85.3	83.3	76.5	68.9	61.5	73.6

South side - RR Wharf. East Coast to Gulf of Mexico. Jan. '89, foot of wharf opposite RR station.

1879-June 1881 incl., readings at 1 p.m.
July 1881-Dec. 1881 incl., readings at 2 p.m.
Jan. 1882 etc., at 2 p.m. Washington time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

ST. MARKS, FLORIDA 30°09'N. 84°12'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1877	-	-	64.4	68.7	72.4	76.5	79.2	76.7	76.7	70.6	64.7	58.9	(68.9)
78	56.4	60.1	65.9	69.5	73.2	77.1	79.9	78.5	75.9	70.9	65.7	59.7	69.4
79	59.8	-	67.6	68.6	73.3	76.2	77.8	75.5	73.3	71.0	-	-	(69.0)
	(2)	(1)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(2)	(2)	
Mean	58.1	60.1	66.0	68.9	73.0	76.6	79.0	76.9	75.3	70.8	65.2	59.3	69.1

Wharf in river 9 miles from Gulf of Mexico

Readings at 3 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

CAPE ST. GEORGE LIGHT STATION, APALACHICOLA, FLA. 29° 13'N. 85° 03'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	56.6	59.2	60.6	69.2	78.6	80.1	85.4	84.5	83.2	71.8	63.3	55.6	70.7
1931	53.2	59.2	58.8	66.6	74.0	81.7	85.8	84.0	83.6	76.4	68.4	68.2	71.6
32	64.2	67.4	61.9	69.3	75.8	82.4	85.6	83.7	81.0	74.0	62.8	-	(72.5)
33	58.1	58.6	62.5	68.8	80.0	81.8	83.6	84.8	84.2	74.4	63.5	63.3	72.0
	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(3)	
Mean	58.0	61.1	61.0	68.5	77.1	81.5	85.1	84.2	83.0	74.2	64.5	62.4	71.7

South tip of St. George Island

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

PENSACOLA, FLORIDA 30° 24'N. 87° 13'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1881	-	-	-	67.7	-	85.2	87.0	84.3	-	78.6	66.8	61.2	(72.1)
82	61.4	61.2	-	-	76.7	-	82.7	83.4	80.8	74.6	66.3	55.3	(71.5)
83	54.7	64.1	61.5	72.2	77.2	83.6	86.0	85.8	81.9	78.0	64.8	60.4	72.5
84	50.2	62.6	65.0	-	79.2	80.4	-	85.4	-	77.2	63.0	-	(71.4)
1885	54.1	53.7	58.8	70.0	76.1	84.7	86.2	86.2	83.0	72.1	63.7	54.6	70.3
1886	49.8	53.7	60.5	68.7	77.3	83.8	84.8	84.9	81.5	73.6	64.0	54.5	69.8
87	51.7	64.1	64.6	70.4	78.7	82.0	85.5	85.1	81.2	72.9	66.3	-	(71.6)
88	58.7	60.9	61.5	72.7	77.1	82.9	-	85.0	81.0	73.5	65.8	55.9	(71.7)
89	55.2	54.9	61.7	-	76.8	81.7	-	-	-	-	-	-	(70.8)
	(8)	(8)	(7)	(6)	(8)	(8)	(6)	(8)	(6)	(8)	(8)	(6)	
Mean	54.5	59.4	61.9	70.3	77.4	83.0	85.4	85.0	81.6	75.1	65.1	57.0	71.3

Palafox Wharf

Readings at 2 p.m. 75th meridian time

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

PENSACOLA LIGHTHOUSE, FLORIDA 30° 20.7'N. 87° 13.4'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	52.0	54.5	53.2	52.3	67.0	80.4	81.6	82.9	80.0	79.0	68.4	47.4	66.6
1931	46.4	49.8	49.8	-	-	-	-	-	-	-	-	-	-
	(2)	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	
Mean	49.2	52.2	51.5	52.3	67.0	80.4	81.6	82.9	80.0	79.0	68.4	47.4	66.0

On mainland opposite channel opening into Pensacola Bay.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

SAND ISLAND LIGHT STATION, MOBILE BAY, ALABAMA 30° 11.2'N. 88° 02'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	54.5	56.2	57.6	65.8	75.2	78.0	82.0	82.2	80.0	71.2	62.0	54.8	68.3
1931	51.6	56.6	58.6	64.2	71.8	78.4	82.8	83.0	85.0	77.6	70.0	65.9	70.4
32	61.4	64.2	61.2	66.8	74.6	81.6	84.4	82.0	77.8	69.5	59.4	64.6	70.6
33	54.0	54.4	59.6	65.7	77.8	79.6	79.8	83.5	82.6	74.4	63.8	63.0	69.8
	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	
Mean	55.4	57.8	59.2	65.6	74.8	79.4	82.2	82.7	81.4	73.2	63.8	62.1	69.8

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

MOBILE, ALABAMA 30°42'N. 88°02'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	80.9	71.7	60.3	56.0	-
74	50.0	54.6	60.4	64.4	70.5	83.1	83.8	86.2	82.8	74.1	64.9	55.3	69.2
1875	50.3	51.4	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	56.6	63.5	72.0	82.1	86.8	85.8	80.0	70.5	60.8	52.4	(67.8)
78	48.7	51.8	61.0	68.4	73.8	82.0	86.4	86.3	81.6	75.2	63.3	51.0	69.1
79	46.5	53.0	59.2	65.5	76.0	81.9	85.6	83.4	80.9	75.1	64.2	55.0	68.8
1880	57.2	54.4	63.4	67.2	73.8	81.6	85.2	85.3	-	72.1	-	51.3	(69.7)
1881	46.2	-	57.8	62.5	-	85.9	88.2	85.4	84.2	78.7	64.1	55.7	(69.6)
82	53.8	56.2	-	-	73.2	-	83.3	83.1	80.0	76.6	65.9	51.3	(69.1)
83	51.0	57.2	58.1	68.1	74.0	82.3	87.6	88.6	85.5	79.3	65.0	57.6	71.2
84	47.6	55.2	59.6	66.3	74.7	-	-	-	-	79.1	63.2	55.6	(69.8)
1885	54.8	54.6	53.7	65.6	-	82.5	86.4	86.1	82.3	70.4	60.1	50.0	(68.3)
1886	45.1	47.7	55.8	63.5	72.9	81.4	82.0	86.5	83.0	75.3	62.7	49.6	67.1
87	41.1	52.8	54.9	-	-	-	-	-	-	-	-	-	-
	(12)	(11)	(11)	(10)	(9)	(9)	(10)	(10)	(10)	(12)	(11)	(12)	
Mean	49.4	53.5	58.2	65.5	73.4	82.5	85.5	85.7	82.1	74.8	63.1	53.4	68.9

Foot of Government Street

1873-Aug. 1880 incl., readings at 3 p.m. local time.
Sept. 1880-June 1881 incl., readings at 1 p.m.
July 1881 etc., readings at 2 p.m. Washington time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

MONTGOMERY, ALABAMA 32°01'N. 86°02'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	83.8	79.9	70.1	56.0	55.5	-
74	50.4	53.4	-	-	-	80.4	82.2	84.2	78.7	69.0	61.0	51.5	-
1875	-	-	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	48.1	-	-	62.6	-	81.6	86.0	84.9	78.2	69.1	57.6	50.3	-
78	46.7	49.9	60.2	68.0	-	-	-	-	-	-	-	-	-
	(3)	(2)	(1)	(2)	-	(2)	(2)	(3)	(3)	(3)	(3)	(3)	
Mean	48.4	51.6	60.2	65.3	-	81.0	84.1	84.3	78.9	69.4	58.2	52.4	-

Wharf
30 ft. from center of channel; June, 1874 - Pier at foot of Commercial Street.

Readings at 3 p.m. local time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

SHIP ISLAND LIGHTHOUSE, MISSISSIPPI 30° 13'N. 88° 58'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	48.3	53.7	54.6	66.2	74.0	76.8	81.8	80.6	78.6	66.0	56.6	48.2	65.4
1931	46.4	53.3	52.8	61.6	59.6	80.0	82.8	79.4	79.6	71.0	64.2	57.8	65.7
32	53.7	57.2	51.4	63.8	71.0	81.5	-	-	-	-	-	-	-
	(3)	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	
Mean	49.5	54.7	52.9	63.9	68.2	79.4	82.3	80.0	79.1	68.5	60.4	53.0	66.0

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

CHANDELEUR, LOUISIANA 30° 03'N. 88° 52'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1904	-	-	-	-	-	-	-	-	88.3	-	63.7	-	-
1905	48.4	54.6	61.4	68.4	82.1	84.2	83.9	85.6	83.4	73.6	65.8	52.7	70.3
1906	54.2	54.5	60.4	70.4	75.3	85.9	84.4	-	-	-	-	-	-
Mean	51.3	54.6	60.9	69.4	78.7	85.0	84.2	85.6	85.8	73.6	64.8	52.7	70.6

Readings at first high water and first low water after 7 a.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

SOUTH PASS, LOUISIANA 29° 00'N. 89° 09'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1933	54.0	56.6	59.4	66.0	76.1	81.0	-	-	-	-	-	-	-

Near southern end of South Pass.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

PORT EADS, LOUISIANA 29° 01'N. 89° 10'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1881	-	-	-	55.1	69.0	81.0	84.9	85.5	84.5	77.6	60.1	46.6	-
82	46.2	49.3	-	-	-	-	-	81.7	80.8	75.8	67.3	50.0	-
83	44.6	44.0	50.0	-	-	-	-	-	-	-	-	-	-
	(2)	(2)	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	
Mean	45.4	46.6	50.0	55.1	69.0	81.0	84.9	83.6	82.6	76.7	63.7	48.3	65.6

Front of Headquarters Hotel Building.

Readings at 1 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

SHIP SHOAL LIGHT STATION, LOUISIANA 28°55'N. 91°04'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1904	-	-	-	-	-	-	-	-	84.9	-	78.3	61.1	-
1905	56.2	56.7	65.9	73.8	81.9	85.1	85.2	-	-	-	-	-	-

Readings at first high water and first low water after 7 a.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

OYSTER BAYOU LIGHT STATION, LOUISIANA 29° 13'N. 91° 08'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	52.8	60.5	60.4	71.1	75.4	79.6	85.4	84.0	80.4	70.0	59.5	50.3	69.1
1931	49.2	56.8	54.9	64.1	73.0	80.4	82.8	80.3	81.6	74.0	67.1	60.6	68.7
32	58.2	63.7	57.6	68.6	73.4	81.6	83.8	86.0	80.2	69.6	57.2	-	(69.7)
33	56.6	55.3	61.6	68.4	78.4	79.2	81.0	82.9	82.3	71.2	61.5	61.6	70.0
34	56.6	54.2	59.4	68.9	74.1	81.0	83.2	84.4	80.2	74.3	64.8	53.7	69.6
	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(4)	
Mean	54.7	58.1	58.8	68.2	74.9	80.4	83.2	83.5	80.9	71.8	62.0	56.6	69.4

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

POINT AU FER REEF LIGHT STATION, LOUISIANA 29° 22.4'N. 91° 23.1'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	64.6	66.6	69.8	79.0	78.1	81.1	85.0	84.4	81.0	72.0	61.0	52.8	73.0
1931	50.6	58.6	57.4	65.8	74.5	82.9	85.6	83.3	83.6	76.1	68.7	60.4	70.6
32	58.7	61.8	57.4	70.2	75.0	83.7	86.0	85.0	80.5	70.2	57.4	-	(70.3)
33	54.0	52.8	59.8	66.4	76.6	78.6	80.8	82.4	82.6	72.3	62.2	61.2	70.8
	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(3)	
Mean	57.0	60.0	61.1	70.4	76.0	81.5	84.4	83.8	81.9	72.6	62.3	58.1	70.8

Shell reef (4 miles NNW of Pt. Au Fer) Station on left side of ship channel to Morgan City.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

SABINE PASS LIGHT STATION, LOUISIANA 29°42.9'N. 93°51.3'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	53.2	62.6	61.9	73.4	78.2	82.1	86.4	86.0	81.6	73.5	63.0	56.0	71.5
1931	55.8	62.1	60.8	69.2	77.0	84.6	86.5	83.8	84.5	78.8	-	58.1	(72.0)
32	59.3	64.2	59.3	75.2	78.0	83.5	87.0	85.0	80.8	71.0	58.6	53.6	71.3
33	59.4	56.6	64.2	71.0	80.6	81.5	84.4	86.4	82.8	76.1	66.9	64.6	72.9
34	57.2	56.8	62.8	73.0	77.1	84.9	85.2	87.0	82.8	77.4	64.8	55.4	72.0
	(5)	(5)	(5)	)5)	(5)	(5)	(5)	(5)	(5)	(5)	(4)	(5)	
Mean	57.0	60.5	61.8	72.4	78.2	83.3	85.9	85.6	82.5	75.4	63.3	57.5	72.0

On Louisiana side of Sabine River, 2 miles from open Gulf.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

SHREVEPORT, LOUISIANA 32°30'N. 93°45'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	-	69.4	56.6	-	-
74	47.2	52.2	58.6	62.0	73.0	83.7	87.6	90.1	82.6	71.5	61.4	52.8	68.6
1875	42.5	48.2	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	68.6	76.2	84.9	90.0	91.2	82.9	74.0	57.8	51.8	(69.7)
78	48.5	52.1	65.5	-	-	-	-	-	-	-	-	-	-
	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(3)	(2)	
Mean	46.1	50.8	62.0	65.3	74.6	84.3	88.8	90.7	82.8	71.6	58.6	52.3	69.0

Near river gauge, Red River

Readings at 3 p.m.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

HEALD BANK LIGHTSHIP 29° 08'N. 94° 10'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	66.4	67.7	67.2	74.4	78.8	84.2	-	-	-	-	67.7	60.0	-
1931	55.4	-	55.9	60.8	71.0	80.5	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	75.9	61.2	-
1935	61.4	60.0	63.3	71.6	74.4	-	-	-	-	-	-	-	-

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

GALVESTON ENTRANCE LIGHTSHIP 29°20.8'N. 94°43.0'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1904	-	-	-	-	-	-	-	-	83.8	76.9	-	57.0	-
1905	51.7	46.5	62.4	70.6	78.9	82.4	82.8	84.8	-	-	-	-	-

Readings at first high water and first low water after 7 a.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

GALVESTON, TEXAS 29°19'N. 94°48'W

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	81.7	71.6	61.0	56.4	-
74	54.8	58.2	-	68.0	76.9	84.7	-	88.0	82.3	74.8	67.1	60.9	(72.2)
1875	51.2	55.4	-	-	-	-	-	-	-	-	-	-	-
1876	-	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	83.9	88.4	89.1	83.8	75.1	62.0	56.4	(71.8)
78	53.4	57.2	67.2	73.3	-	-	86.4	84.6	79.4	76.9	64.4	53.3	(71.6)
79	49.5	57.8	68.2	-	80.2	82.8	87.0	84.6	81.4	75.8	67.1	59.0	(72.0)
1880	64.3	58.1	64.9	72.6	79.1	82.4	-	84.7	80.6	72.0	56.6	55.4	(71.5)
1881	46.8	55.3	62.7	70.3	80.2	86.6	86.6	86.2	82.0	-	-	-	(70.9)
82	-	-	-	-	-	-	-	-	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	-	-	-	-	-	-	63.0	-	-
1885	-	52.6	61.2	72.6	78.2	86.1	87.7	87.4	82.1	71.8	66.4	56.8	(71.3)
1886	47.8	53.6	61.0	69.3	77.6	84.6	86.5	86.1	81.9	73.5	61.9	58.1	70.2
87	51.2	64.4	-	72.0	78.5	83.2	86.7	86.7	81.8	70.8	64.8	-	(71.8)
	(8)	(9)	(6)	(7)	(7)	(8)	(7)	(9)	(10)	(9)	(10)	(8)	
Mean	52.4	57.0	64.2	71.2	78.7	84.3	87.0	86.4	81.7	73.6	63.4	57.0	71.4

New York Steamship Wharf at foot of 24th Street, 1873-75. Foot of Tremont Street; 22nd Street, 21st Street.

1873-Oct. 1879 incl., readings at 3 p.m.
Nov. 1879-June 1881 incl., readings at 1 p.m.
July 1881 etc., readings at 2 p.m. Washington time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

GALVESTON, TEXAS 29° 19.6' N. 94° 41.5' W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	50.8	57.6	59.7	69.3	76.0	80.4	84.2	85.0	81.2	71.1	62.4	-	(69.8)
1931	52.1	57.2	57.1	63.2	71.7	80.8	85.0	82.8	84.0	77.4	70.0	58.8	70.0
32	59.5	63.6	59.4	68.7	75.8	81.7	85.8	85.0	81.9	72.4	62.0	53.6	70.8
33	57.6	55.4	61.6	68.8	79.2	82.4	83.6	85.6	84.8	77.3	68.6	66.1	72.6
34	59.6	58.4	61.2	69.4	77.0	83.4	83.9	84.8	81.7	78.0	69.7	58.8	72.2
	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(4)	
Mean	55.9	58.4	59.8	67.9	75.9	81.7	84.5	84.6	82.7	75.2	66.5	59.3	71.0

At end of pier on Galveston Island.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

HALF MOON REEF LIGHT STATION, MATAGORDA BAY, TEXAS 28° 32.3'N. 96° 15.4'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	45.5	59.4	60.2	71.2	75.8	81.4	83.6	84.5	80.6	72.2	63.6	54.6	69.4
1931	53.2	61.5	60.4	66.1	74.0	82.5	85.6	84.2	83.8	79.6	70.3	57.2	71.5
32	59.0	63.8	59.4	71.4	77.4	83.4	85.3	85.0	81.6	72.4	60.4	52.8	71.0
33	58.9	55.2	64.2	70.0	79.4	81.0	83.8	84.0	83.7	76.0	-	66.2	(72.3)
34	58.8	56.8	59.9	-	74.0	80.0	83.0	83.5	82.4	-	-	-	(70.5)
1935	58.2	57.9	65.8	-	-	-	-	-	-	-	-	-	-
	(6)	(6)	(6)	(4)	(5)	(5)	(5)	(5)	(5)	(4)	(3)	(4)	
Mean	55.6	59.1	61.6	69.7	76.1	81.7	84.3	84.2	82.4	75.0	64.8	57.7	71.0

Oyster built reef about 3 miles SW of Palacios Point.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

INDIANOLA, TEXAS 28°36'N., 46°30'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1873	-	-	-	-	-	-	-	-	83.2	73.5	-	-	-
74	-	-	-	-	78.1	84.1	-	84.9	82.6	77.3	68.0	61.2	-
1875	47.6	57.3	-	-	-	-	-	-	-	-	-	-	-
1876													
77													
78				1876 - 1880 Data Missing									
79													
1880													
1881	-	-	-	72.3	-	-	87.0	86.8	82.7	79.4	63.4	59.8	-
82	59.7	65.1	-	-	77.4	-	85.6	85.0	81.2	78.2	67.1	57.4	(73.2)
83	-	53.7	65.8	72.5	78.5	85.4	85.6	87.8	81.9	79.6	67.6	60.5	(72.4)
84	46.3	60.7	65.9	69.2	-	-	87.9	-	84.9	77.6	65.2	-	(72.2)
1885	47.7	52.9	62.4	73.6	77.5	84.8	86.8	86.3	83.2	72.8	69.0	58.7	71.3
1886	47.2	54.9	-	-	-	-	-	-	-	-	-	-	-
	(5)	(6)	(3)	(4)	(4)	(3)	(5)	(5)	(7)	(7)	(6)	(5)	
Mean	49.7	57.4	64.7	71.9	77.9	84.8	86.6	86.2	82.8	76.9	66.7	59.5	72.1

Morgan Wharf in Matagorda Bay. Dec. 1881, 500 yards from shore.

Station destroyed August 1886

1873-1875, readings at 3:45 p.m.
1881-1886, readings at 2 p.m., 75th meridian time.

Source - USCFF

Monthly and Annual Mean Surface Water Temperatures, °F

PORT ARANSAS (PASS), TEXAS 27° 50'N. 97° 02'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	49.2	61.2	62.4	73.9	79.6	83.9	87.1	86.3	-	74.6	64.6	55.8	72.0
1931	56.0	61.6	63.2	69.2	76.8	83.8	87.4	85.6	85.0	79.8	71.1	59.0	73.2
	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(2)	(2)	(2)	
Mean	52.6	61.4	62.8	71.6	78.2	83.8	87.2	86.0	85.0	77.2	67.8	57.4	72.6

Station on pass is of doubtful location, not definitely known.

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

ARANSAS PASS LIGHT STATION (HARBOR ISLAND), TEXAS 27° 51.8'N. 97° 03.2'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1932	60.8	64.1	61.5	73.3	80.2	85.0	87.4	86.3	82.0	73.6	62.8	54.8	72.6
33	61.4	58.6	69.5	75.2	80.4	85.8	86.6	87.1	85.4	78.2	67.8	68.2	75.4
34	61.4	59.4	63.6	73.8	80.6	85.6	85.6	-	-	78.1	69.7	59.8	(74.0)
	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(3)	(3)	(3)	
Mean	61.2	60.7	64.9	74.1	80.4	85.5	86.5	86.7	83.7	76.6	66.8	60.9	74.0

Readings at 8 a.m. and 6 p.m.

Source - USBF

Monthly and Annual Mean Surface Water Temperatures, °F

BRAZOS SANTIAGO LIGHT STATION, PORT ISABEL, TEXAS 26° 04.4'N. 97° 10'W.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann.
1930	47.2	54.4	54.7	54.9	62.0	65.2	65.8	63.7	65.2	61.3	51.9	43.8	57.5
1931	45.3	48.0	46.6	50.8	59.0	62.6	67.0	68.1	67.8	63.2	59.1	50.0	57.3
32	50.4	55.0	47.6	57.4	63.1	66.4	67.4	67.0	65.6	62.8	54.8	42.4	58.3
33	49.9	59.5	53.6	57.5	64.0	66.7	67.0	66.5	67.5	66.0	59.0	57.4	61.2
34	48.5	51.6	51.0	58.6	63.5	67.4	68.0	69.1	78.0	78.4	74.8	65.6	64.5
	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	
Mean	48.3	53.7	50.7	55.8	62.3	65.7	67.0	66.9	68.8	66.3	59.9	51.8	59.8

On southern tip of Padres Island - the Port Isabel-Brownsville ship channel passes east to west about 5100 feet south of the station.

Readings at 8 a.m. and 6 p.m.

Source - USBF

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